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THE MAGAZINE OF SCIENCE FICTION AND FANTASY ADVENTURE GAMING

Nr. 8

Ares

The passing of Fimbulwinter
presages the end of worlds of gods and men.
The legions of evil storm across the Rainbow Bridge
to do final combat with the heroic Aesir in the battle called...

RAGNAROK

The Twilight of the Gods



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ON THE MYTH OF RAGNAROK**

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AND FANTASY
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ENCLOSURES: Ragnarok map and counters; Feedback card, subscription form.

Looking Ahead to Next Time

Ares nr. 9 will feature *Laserburst*, a simulation of ship-to-ship combat in deep space; all sizes of ships from one-man fighters to armored transport ships are included in this multi-scenario game. There will also be fiction, *Science for Science Fiction*, *Facts for Fantasy*, reviews, and much more.

When to Expect Nr. 9

Domestic Subscribers: If you have not received your copy of *Ares* nr. 9 by 7 August 1981, notify our Customer Service Department. Please include your Customer Code and issue of expiration, both of which should be found on this issue's mailing label, just above your name. **Foreign Subscribers:** Add eight weeks to the above date to allow for the lymphatic pace of international mail.

On the Cover

John W. Pierard's representation of Odin, Thor, and Vidar entering the Plain of Vigrid, based on a concept by Redmond A. Simonsen.

Muse

I suppose that all editors strive to express their identities through the material that they put into their publications. An arm's length analysis might assume that because I'm of Scandinavian descent, I caused this issue to come to being with its Norse theme. I'm here to tell you it "ain't so Joe." The one who determines what subject gets treated by an *Ares* game is the collective identity of the *Ares* readership (via feedback cards).

Perhaps some of you who've been with us a long while have become jaded over the use of feedback cards included in our various publications. I must assure you that the feedback is the single most important component of the decision process that determines what game gets published in the magazine. If you care about the games and articles that come to you through *Ares*, you must do your feedback card, even though, I realize, it sometimes becomes tedious.

You've kept up a steady pressure indicating that you want game-oriented

material. In this issue you'll notice an increase in the number of game reviews and an article showing you how to link the two *Pandora* games published in *Ares*. Incidentally, John Butterfield's *Voyage of the Pandora* was fantastically well received (getting a 7.4 rating). Other games in this format are being dreamed up even as I write this.

Next issue John's major new role-playing game, *Universe*, will be formally introduced by the inclusion of its tactical combat system as the issue game. It's going to be good fun.

Redmond



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HISTORICAL BACKGROUND

RAGNAROK

The Mythic Story of the Twilight of the Gods

By Susan Schwartz

Ragnarok, the twilight of the gods, might have begun with the battle of the Aesir and Vanir, after which all faith seemed easy to break. After the battle, betrayals were more common than oaths. More probably, however, Ragnarok began when Baldr was slain.

Most beautiful of the Aesir, Baldr was the son of Odin and of Frigg. Everyone who saw him loved him, but there came a time when he began to have nightmares which prophesied danger for him. His mother went to every being and every thing on earth — fire, gold, water, stones, serpents, illnesses, birds — and asked them to swear an oath not

to harm Baldr. Since all things on earth loved him, Frigg received all these oaths. Baldr now seemed invulnerable. A favorite pastime in Asgard consisted of hurling weapons at him for the sheer joy of seeing him remain unharmed.

But Loki the trickster watched. He hated Baldr as he hated all good things. He changed shape into the guise of an old woman and visited Frigg. Why were the gods laughing so much, he asked. Frigg told him of the oaths. Loki asked if Frigg had really extracted an oath from every thing and creature in Middle Earth. Frigg confessed that she had passed by the mistletoe, which seemed too young and too humble to harm anyone.

Upon those words, Loki reassumed his own shape and gathered the mistletoe. He came back to Asgard, where the guards were still throwing rocks and spears at Baldr and laughing at their sport. One day Hodd, Baldr's brother, stood apart. Hodd was blind and, as he told Loki (who pretended to be sympathetic), he had neither missile to hurl at Baldr nor sight to hurl it with. Loki handed him the mistletoe and offered to guide his hand. The mistletoe pierced Baldr and killed him. Hodd killed himself, and the gods wanted to kill Loki, but dared not — the place where they met was consecrated ground.

So Loki escaped, and the gods grieved. Frigg promised to sleep with anyone who would dare Niflheim, Hela's kingdom, and

bring Baldr up. Hermod, one of Odin's sons, promptly borrowed Sleipnir, his father's eight-legged horse, and rode to the underworld. Hela was not encouraging; she would release Baldr only if every creature and thing in the universe wished it. If one single being refused to weep for Baldr, she intended to keep him.

Meanwhile the gods prepared his funeral. They laid the body on his ship. His wife Nanna slew herself out of grief. As Thor blessed the ship and the funeral pyre, other gods led Baldr's horse on board. Then the ship was burnt. All the gods attended, and even some of the giants of Jotunheim, Asgard's enemies.

When Hermod returned from Niflheim with Hela's message, the Aesir were delighted. If even the giants mourned at Baldr's funeral, surely all creatures would grieve for him, and he would be reborn. But they had not counted on Loki, who disguised himself as a giantess called Thokk. She alone refused to weep for Baldr, and Hela kept him.

Fimbulwinter

Now it seems that spring has not come to Middle Earth for years. Gradually the gods and mortals begin to suspect the truth. This is no true winter that keeps the lands between Asgard, home of the gods, and Niflheim, the underworld, dark and cold. This is the Fimbulwinter, the years long

THE VIKING GODS

Norse deities were divided into two clans, the Aesir and the Vanir. The Aesir — among them Odin, Thor, Tyr, Heimdal, Baldr, and Loki — were preeminently gods of war. The Vanir, who were especially popular in Sweden, provided forests and fields with sunlight and rain. They made plants, animals, and human beings thrive, and they cherished peace. The three Vanir — Njord, Freyr, and Freyja (often confused with Frigg, Odin's queen) — can be regarded almost as fertility spirits. Njord is equivalent to Nerthus, the Mother Goddess of whom Tacitus writes (see Facts for Fantasy); but Tacitus regarded only one aspect of Njord, who was actually bisexual. Freyr and Freyja simply mean lord and lady.

At the dawn of time Aesir and Vanir lived in peace. They built altars, worked in gold, and forged tools. Later, however, the Aesir tortured an emissary of the Vanir and war broke out between the races. From then on, the Aesir used treachery, deceiving the giant who built Valhalla for them of the bride he thought he had earned, and causing all the treaties and oaths throughout the world to lose their validity.

Sitting in Valhalla, his daughters the Valkyries bringing him his Einherjar, or chosen warriors, his ravens bringing him information, Odin, ruler of the gods, knew that this trickery meant only one thing: that the earth approached its end. Gradually the weight of evil and the increasing strength of Valhalla's enemies would bring it down.

The end of the world, Odin knew, would come and he would not survive it. Already it had many names. The oldest bards called it *ragna rok*, which means the fatal destiny of the gods. Later Norse poets called it *ragna rokkir*, the twilight of the gods, which translates into German as *Götterdämmerung*, the gods' twilight.

ODIN

Called the All-father, Odin was the principal god of the Germanic people and was given numerous attributes. Riding on the eight-legged horse Sleipnir, he provided the world for knowledge, often conspicuous in his flowing cloak and wide-brimmed hat. Sometimes he hunted, the thunder on stormy nights being the maddened gallop of his troop of dead warriors as they chased across the skies after their quarry. Odin inspired warriors with courage and honor, but was also master of the war-fetter — the panic that drives armies into mad retreat.

Like the gods of Greco-Roman myth, Odin achieved his sovereignty by overthrowing older gods — primarily Ymir, the frost giant. With his brothers, Vili and Ve, Odin created Midgard (Middle Earth) for men from the eyebrow of Ymir, and then created the first race of humankind. Odin is seen in Asgard as wearing a breastplate and golden helmet and brandishing his great spear, Gungnir, which no power can deflect from its course when it is hurled.

Odin was also a shape-changer with the power to assume any shape he pleased. He was a *skald*, or maker of poems, who had paid for his wisdom with one eye. All during his early wanderings, Odin questioned everyone he met, slowly building up his body of knowledge. But he was not satisfied. So he went to his mother's brother, Mimir, wisest of counsellors and the guardian of a fountain of wisdom located near the roots of Yggdrasil, the ash tree that holds up the world. Mimir took an eye from Odin before letting him drink from this fountain. Although Mimir died during the war between the Aesir and Vanir, Odin retained both his wisdom and the head of Mimir, which prophesied and told him of hidden things.

In a poem called the *Havamal*, the story is told of how Odin sacrificed himself to himself and hung for nine nights on the World-Ash tree, and thus learned the secrets of the Runes. If he is the Norse god of wisdom, he is also its dying and reviving god.

freeze that presages Ragnarok, the twilight of the gods and the destruction of the world.

There is no real need to be surprised. No one ever expected the world — or, for that matter, the gods — to last forever. And after Baldr's death, no one seemed to want them to, least of all themselves. Nevertheless, they went on living. Valkyries brought more and more men to Valhalla, Odin's hall in Asgard, to build up the army he would need to fight on the last day. Every morning the men went out and fought. Every night, restored to health despite the wounds their day's exercise cost them, they feasted. So did the gods.

Loki returned to Asgard during one of these feasts and taunted the gods. He accused all the goddesses of infidelity and called Thor a coward. When Thor threatened to kill him with Mjollnir, his great hammer, Loki fled, afraid to stand and fight...but his last words were a threat. This time, he told the Aesir, would be their last. Soon Loki's flames would consume them all.

Fleeing Asgard, Loki went to a mountain and built himself a house with four doors; thus, if the gods were to approach, he was bound to see them come and could flee. Soon the Aesir did arrive to seek their

THOR

Whereas Odin is known as the commander of the Aesir, Thor is best known as its greatest fighter. Odin's son and husband to Sif, he is known for his plainness of speech, his cherished magic goats, and, most of all, for his magic hammer Mjollnir, which always returns to its master. He is the god of thunder and the god of war. Called Donar in Germany and Thor in Scandinavia (the Vikings called themselves the sons of Thor), he is more beloved, but less awesome, than Odin. Customarily, he is depicted as wearing a long red beard and carrying Mjollnir, which had fallen, poets say, out of a thunderbolt during a storm. He also possessed a girdle, which doubled his strength when worn, and a pair of iron gloves which enabled him to wield his hammer.

BALDR (Balder)

With Odin, Baldr is also recognized as a god of death and rebirth. The most handsome of the gods, he was also the most clever in speech and the kindest. He was also known as an upright judge, reconciling all who came to him for advice. It was his treacherous death at the instigation of Loki that formed one of the keystones for Ragnarok. The evil Loki tricked Hodder, Baldr's blinded brother, into throwing a mistletoe twig, the one thing Baldr's mother, Frigg, had forgotten to draw an oath from not to harm her son; the twig killed Baldr, and with his passing went all perfect happiness, justice, and beauty out of the world. Loki was punished for his crime, but his escape triggered the coming of Ragnarok.

revenge. Loki tried to hide by transforming himself into a salmon. The gods captured the fish-god with the very net Loki had created. He was bound in chains made from the bowels of his son, Narvi, and a poison serpent was hung over his head to drip venom in his face. (Loki's wife Siguna sat by her husband, catching the venom in a cup; whenever she emptied it, the poison dripped in Loki's face, causing him tremendous pain.) He would remain a prisoner of the gods until the world's end.

The gods knew they could not hold back Ragnarok. It was Fated, and the Aesir knew it.

TYR (Tiu)

The god from whom the word Tuesday comes is a major figure at the last battle. The etymology of his name indicates that he was once a sky-god very like Zeus, for the roots of both names are identical. Originally he was the god of war, but as Thor became more important, Tyr became the god who governed the rules of war and finally descended into the status of a minor god. This, however, was far from the actual case. Tyr indeed was the symbol of law, of fidelity, and of adherence to contracts. He earned that reputation with the loss of his hand when the Fenris-wolf was bound.

In attempting to bind the wolf, a mortal enemy of the Aesir, the gods twice forged the chains which the wolf easily snapped. Finally, the dwarfs fashioned a new kind of chain: it was formed from the wail of a cat, the beard of a woman, a mountain's roots, a bear's tendons, a fish's breath, and a bird's spittle. Soft as a silk ribbon, the chain, Gleipnir, looked like a fragile thing. Challenged by the gods to test its strength, Fenris was dubious. It insisted that the only way it would be chained was if one of them placed a hand in its mouth. While the other gods hung back, reluctant to lose a hand, Tyr placed his hand in the wolf's mouth and lost it as the beast realized it was trapped.

HEIMDALL

One of the most important of the Aesir, Heimdall is also one of the least known. Poets say little about him. He is a god of light; his main job is to guard Bifrost, the rainbow bridge at the approach to Valhalla. He resembles the Roman god Janus, since he presides over beginnings and endings. At divine assemblies, he is always the first to speak. His senses are highly acute; he can even hear grass growing.

Tall, handsome, and a patron of order, he had a mortal feud with Loki, who constantly mocked the watchman. At the beginning of Ragnarok, Heimdall sounds his great trumpet that resounds throughout the world and announces the coming of the enemy. He and Loki are to slay each other on the battlefield.

Odin, who had once hung for nine nights on a world-ash tree as sacrifice to himself to learn the secrets of the runes and who paid an eye to drink from the Well of Wisdom, could not rest. He went to the Sybil and asked her for a prophecy. She mocked him with his own destruction and began to prophesy. After each verse she taunted, "Well, would you know more?"

The Prophecy

What the Sybil predicts to Odin is terrible. Baldr is dead, she tells him, and the Valkyries bring slain warriors in every day to swell Valhalla's armies for the coming battle. In the Ironwood, she warns, the brood of the Fenris wolf, who long ago was chained by Tyr, is thriving. Soon all these wolves will break free; one of them is to swallow the sun and the earth will be plunged into a long, miserable winter. The world rolls in murder, war and treachery.

VIDAR AND VALI

These gods, sons of Odin, are later creations of poets and never achieved separate cults. Vidar was considered rather dim-witted and seldom spoke among the assembly of the gods; often his opinions were entirely ignored. He is best known for slaying the Fenris-wolf after it had slain his father on the field of Vigrid. Vidar and his brother Vali survive Ragnarok and become new gods in the golden world. Vali is best known for his great desire to avenge Baldr's death, being so concentrated on the task that he never combed his hair or washed his hands.

FREYR

Originally Freyr, whose name means "lord," was one of the Vanir, a far more peaceful race than the Aesir. An emissary was sent by the Vanir to the Aesir, perhaps to make them more greedy for gold and thus tame their warlike ways, but the Aesir grew so avaricious they tried to tear away the emissary's knowledge, first by burning her and then, after resurrecting her, by torturing her. The Vanir were outraged at such treatment, and war was declared. However, neither side could overcome the other, and after much fighting, a truce was arranged. Freyr, along with Freya and Njord, went to live with the Aesir, and Hoenir went to live with the Vanir.

Freyr was a chief god of the Vanir, but his role seems to have been primarily symbolic, a sort of personification of order and fertility. He had wonderful gifts — a boat large enough to hold all the Aesir, yet which folded up to fit into a pocket; a golden boar that could pull a chariot; and an invincible sword that moved through the air on its own. He seems to have lost his sword somehow, for he lacks it at Ragnarok. He is one of the first gods slain in the battle.

In the meantime, Eggthur, a warrior and harper, spies near the kingdom of the giants, and the Aesir watchman, Heimdall, holds his post at Bifrost, the rainbow bridge that guards the approach to Asgard. Though men and Aesir cannot withstand Wyr, or Fate, they must try.

The signal of the beginning of the actual Twilight of the Gods is Loki's escape from his bonds. He manages by trickery to steal Heimdall's sword, and by the time the watchman sounds an alarm on his great horn to warn the Aesir, it is already too late. The Giants are on the march from Jotunheim, and their allies — all the creatures of land, sea and fire — prepare to join them.

Garmr, the terrible hound who howls outside Niflheim, signals the coming of the last battle by baying. Fenris, the wolf-son of Loki, breaks the chain Gleipnir that Tyr had bound him with (losing a hand in the process). As Fenris shakes himself free, the entire earth trembles. These cataclysmic earthquakes trap all the dwarfs, who made Fenris' chain, and shake from its roots to branches Yggdrasil, the ash-tree support of the universe.

This is an evil time to be alive, the Sybil warns... though the world will not last much longer. Those humans not destroyed by the earthquakes will not survive the burning... or the battle. Nor were they meant to.

The giant Hrym is ready for battle and sails against Odin and his warriors in a ship crewed by phantoms. His ship rides a giant wave created by the Midgard Serpent, who has risen from the depths where it circled the world and now thrashes the ocean in its fury. From the east, accompanied by his son the Fenris wolf, sails Loki on *Naglfar*, a ship constructed entirely from nail clippings; Fenris drips blood from its open mouth, its upper jaw touching the sky, its lower brushing the sea. Surt, the most powerful of the fire

giants, advances from the south. All about him flames spring up, mountains crumble, and what is left of humanity perishes. Even the vault of heaven shakes. The fire giants ride across the rainbow bridge Bifrost, their passage kindling it and causing it to collapse.

Now the gods of Valhalla together with the men the Valkyries have brought to Odin in anticipation of this day meet their enemies on the field of Vigrid. The first to attack is Odin, clad in his helmet trimmed with eagles' wings, who rushes at Fenris, only to disappear into its gaping jaws. As Odin's wife faints from grief, his son Vidar avenges his father; he forces open the wolf's mouth and then uses a long sword to pierce its heart.

Freyr, one of the Vanir who allied himself with Odin, faces off against the giant Surt, who manages to turn the god's own sword against him. Thor crushes the Midgard Serpent's skull with his hammer, but the serpent's venom, expelled in its death agony, overpowers the god. He takes nine steps forward, then falls dead. Heimdall the watchman finds Loki and kills him, but dies of the wounds Loki inflicts on him. Meanwhile, Tyr, one of the fiercest and the last surviving god, strides across Vigrid seeking to slay the wolf who cost him his hand. Instead he meets up with Garmr, the hound of hell, and they kill each other.

The heroes that the Valkyries brought to Odin's aid are long dead. Now all the Aesir too have died. The giants and evil creatures — those that have survived the battle — have conquered. They will not have long, however, to enjoy the world they have won.

Already devastated by fires and earthquakes, the earth's surface becomes a shapeless mass. One by one, the stars come adrift from the sky and fall into the void. Surt, the fire giant, sets the entire earth on fire. All over Middle Earth steam hisses as the seas boil over, and all life perishes. Finally, the earth sinks into nothingness.

There is no Middle Earth now, no ruling company of Aesir, no evil giants. All that remains is Yggdrasil, shaken, gnawed, and charred — yet indestructible — and the prophecy of the Sybil.

Rebirth

The Sybil leans forward to tell Odin what will come after the destruction of heaven and earth. After the death of the Aesir and the triumph of fire, Middle Earth will rise a second time from the void. It will be fresh and green, very much like the Middle Earth that was, only it will be more beautiful. The eagle, stooping in its flight to catch fish, will thrive in this new world. Land will bring forth crops even before it is sown with seed.

Who will live in this land and rule it, she queries. The land has been cleansed of evil and distrust, and now gods and men will live together in peace forever. Several of the

(continued on page 35)

GARMR (Garm)

Garmr is the hound of hell and serves a function similar to Cerebus by guarding the entrance to the realm of the undead. One sign of Ragnarok is the howling of Garmr, who breaks free to join the battle.

HRYM

Hrym is a leader of the Jotuns, or giants, the hostile race that opposes the Aesir. At Ragnarok, Hrym approaches the field in a boat powered by phantoms.

THE MIDGARD SERPENT

Also called Midgardstör, this serpent was an offspring of Loki and Angerbode. Odin seized the serpent and threw it into the depths of the ocean that surrounded the earth; it had grown so large it was able to take its tail in mouth and encircle the lands of men. Its writhings caused the great storms on the seas. In his youth, Thor sought to destroy the serpent. He went out with a giant-fisherman and managed to hook the serpent on a harpoon. The fight was terrible between the god and monster, and the terrified giant finally cut the line that Thor used to hold the serpent, allowing it to return to its ocean bed.

At Ragnarok Thor is to meet the serpent once more. This time he will shatter its skull with his hammer, but the poisonous venom and the thrashing of the serpent's tail will take their toll. Thor will survive only long enough to take nine steps and then fall dead. ■■

LOKI

Loki, despite some accounts, is not Odin's son. He is the son of Farbauti, who symbolized flint, and his mother Laufey, which means the wooded isle which provides fuel for fire. He is an elemental, a being who has bullied his way into the gods. As a sort of fire-spirit, he is a trickster, often present and usually treacherous, embodying many of the clichés about fire's being a good servant but a bad master. Not only does he trick the gods, bring about Baldr's death, and prophesy the ending of the world in flames, he also takes an active part in the process by taking the nail-clipping boat *Naglfar* into the last battle.

He has sired numerous giants and the great monsters who threatened the gods. His children include the Midgard Serpent, the Fenris-wolf, Hela (guardian of the underworld), and Odin's steed, Sleipnir. Loki was known for getting the gods into dilemmas and then using his quick wit to get them out safely again. Next to Satan, Loki is one of the great mythic figures of sheer evil and betrayal.

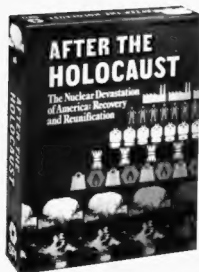
SURTR (Surt, Surtur)

Surt is a fire-giant and rules Muspelheim, the realm of fire that lies beneath the burning middle sun. This land borders Midgard (Middle Earth) on the south. On the day of Ragnarok, Surt advances, splitting the earth before him and starting the world on fire. He kills Freyr during the battle and survives to burn up the whole universe.

FENRIS (Fenrir)

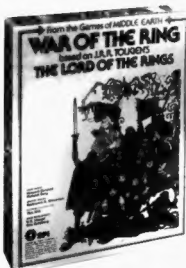
An offspring of Loki and Angerbode, this great wolf was an implacable enemy of the gods. It is a huge being, its top jaw scraping the sky, its lower touching the sea. Fire shoots from its eyes and nostrils, and blood gushes from its mouth. Though the gods could not slay him, since that would have involved spilling blood on sacred ground, they could chain him. Only the dwarfs' magical chain Gleipnir was able to contain the beast, though in the process of trapping it Tyr was forced to sacrifice his hand. In its cavity it spawned a litter of wolves off a giantess; one of its children swallowed the sun, throwing the earth into darkness at the beginning of Ragnarok. In the battle Fenris swallows Odin early on and is then itself dispatched by Odin's son, Vidar.

SPI means great SF/F



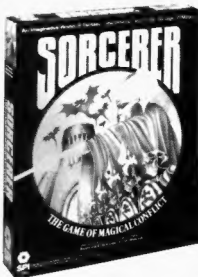
After the Holocaust

The United States lies fragmented after a devastating nuclear war. Players oversee the development of the sub-nations as through economics and militance a new, united country is formed.
1520, \$18



War of the Ring

J.R.R. Tolkien's epic trilogy comes to life in this two-map game: in the Character Game, the Fellowship attempts to outwit Sauron and destroy the One Ring; in the Campaign Game the armies of Middle Earth clash in final combat.
1790, \$20



Sorcerer

In a world of multi-color magic, great wizards send out armies of trolls, dragons, demons and humans to conquer enemies. Multi-scenario game covers all the great battles of the age of magic.
1020, \$15



DragonQuest

The leading-edge product of a new fantasy role-playing system. Game system covers character generation, magic, combat, monsters, and running an adventure.
2820, \$12

DD Gamemaster Screen
3311, \$4

DD Adventure #1
The Palace of Ontocello
3161, \$6

DD Adventure #2
The Blind of Allecton
3171, \$6



Swords & Sorcery

A highly detailed fantasy world is the background for two game systems in one package: Army Game concentrates on the wars of the races in the Valley of Aralive; Quest Game concentrates on the exciting exploits of the various characters.
1990, \$20



Freedom in the Galaxy

Heroic game of rebellion against a corrupt galactic empire, as characters build up armies to lead against galactic troops or persuade planetary leaders to change allegiance. Three levels of play: star system, province and grand galactic campaign.
2210, \$20

GAME VARIANT

Pandora's Link

The Voyage and Wreck of the Pandora Campaign Game

When *Voyage of the Pandora* appeared as a feedback suggestion in *Ares*, it was supposed to be compatible with the game system of *Wreck of the Pandora*. *Voyage* was designed with this restriction in mind. There are a few holes in the rules that need to be covered in order to play a campaign game using both game systems. In addition to the campaign game, rules have been added for tournament games using the *Voyage-Wreck* game systems.

Combining Voyage and Wreck

To use the campaign game, a player starts out playing *Voyage of the Pandora* normally. When, during the game, a player arrives at Paragraph 232, he should use the following new text in its place.

232. Bypassing a blue-white Wolf-Rayt star on its homeward bound journey, the *Pandora* suffers massive internal damage. Set up *Wreck of the Pandora* game and place the counters using the following guidelines.

•All creatures captured during *Voyage* are used, rather than the creatures that appear in *Wreck*.

•Any artifacts picked up during the *Pandora's* exploration may be used.

•Roll 1D6-1 to determine how many crew members are awake. (Either the *Voyage* or *Wreck* ratings may be used for the crew.)

Creatures Aboard the Pandora

When the *Pandora* is damaged, the players use only those creatures that have been captured during the play of *Voyage of the Pandora*. To translate the values on the *Voyage* creature counters to *Wreck* creature counters, see the accompanying Ratings Chart to determine Weight, Port, and Shield ratings. (Speed, Aggression, and Intelligence are the same; a Combat rating in *Voyage* is the same as the Impair rating in *Wreck*.)

The Rating Chart also includes a new category, Survival, which indicates how able a creature is to survive aboard the wrecked *Pandora*. The first time a creature is encountered by a character, a check must be made to determine whether or not the creature is still alive (although its atmosphere still lingers in its pod, the air might be too diluted). If the creature later does venture out into the corridor, a second check must be made. In the corridor a creature has the chance to dash back into its pod before dying; one die is rolled, and if the resulting number is lower than the creature's Intelligence rating, it stays in the pod.

Determining Victory

If the ship is saved from cold shutdown, then determine the number of victory points according to the *Voyage of the Pandora* game system. If the ship enters cold shutdown, the player automatically loses. To balance the game, the Weight, Shield and

Port ratings should also count for victory points for the creatures at a rate of one point per rating.

Tournament Games

Players may wish to compete against each other using the *Voyage* and *Wreck of the Pandora* games. Each player should have a copy of both games. The player with the highest victory point total is the winner. There are two categories of tournament games.

Tournament I: Each player records the information about each planet explored and keeps it separate. The first player to discover

and capture a new creature earns double the victory points for that creature; other players who discover that creature only get the original victory points.

Tournament II: Each player records the information about a planet he explores; when another player visits the same planet, the first player announces to that player the characteristics discovered for that planet. (This method of recording a planet's characteristics will slow down tournament play considerably.) As in Tournament I game, the first player to discover and capture a new creature earns double the victory points for this deed.

Justin Leites

Ratings Chart for Voyage Creatures

CREATURE	WEIGHT	SHIELD	PORT	SURVIVAL
Abominid	2	2	3	B
Accratt	2	1	(3)	B
Aeron	1	1	3	C
Allidon	1	(2)	(2)	C
Aquan	1	(2)	(3)	D
Armetee	(1)	1	1	B
Blaspe	3	2	3	B
Bubblar	1	1	(2)	B
Crusher	3	3	1	B
Curder	4	1	0	C
Decapus	1	0	2	C
Decodon	1	(1)	1	C
Draide	1	1	3	C
Eiehold	(2)	1	(3)	A
Erequito	(1)	(1)	0	D
Fasttomite	2	2	(1)	C
Fictist	0	0	(1)	D
Follasaur	1	0	1	C
Gabstair	(2)	0	NA	D
Glasman	0	(2)	1	D
Glooper	3	2	0	C
Inhorn	4	3	0	B
Ivy Fire	2	1	3	A
Mirror Fly	1	4	0	C
Minkae	2	2	2	C
Nessie*	5	1	NA	D
Onaloid	1	0	1	B
Omilly	(2)	(2)	(1)	C
Parabold	(3)	(1)	(3)	C
Promite	NA	NA	NA	C
Radrod	0	0	1	C
Reeler	1	1	1	C
Scorsaur	3	1	0	C
Shoff	2	3	1	C
Snoup	1	(1)	1	D
Spiker	1	2	0	C
Unithalo*	5	0	NA	C
Urasmax	3	2	1	C
W-Wasp	(2)	1	(1)	C

Key: Weight, Shield and Port ratings are applied to creatures in *Voyage* for play in *Wreck of the Pandora*. For survival, see Survival Chart. * = Creature too large to move into corridors; (†) = number is subtracted from die roll; NA = Not applicable.

Survival Chart

RATING	FIRST ENCOUNTER	INCORRIDOR
A	11-12	11-12
B	11-12	9-12
C	9-12	2-4, 9-12
D	2-5, 9-12	2-9

Explanation of Results: Determine the creature's Survival rating from the Ratings Chart, and roll two dice. If the number falls within the range indicated in the Survival Chart, the creature dies. A creature must be checked the first time it is encountered and the first time it moves out into a corridor.

Voyage of the Pandora Addenda

Map

Hex 1318 does not contain marsh terrain. Hexes 0607 and 0607 are underwater cliff hexes.

Counters

The Reconbot is considered to contain a scanner, in addition to its other attributes. When in an expedition, the Reconbot may be used to help prevent surprise as described in 8.1. There is no additional effect when the Reconbot and the scanner are both in an expedition.

Rules

(8.7) (correction and addition) Flat, hill, mountain and cliff terrain types are exclusive of one another. Only the single most expensive type (in terms of hours required to enter or explore) of these four in a hex is considered to exist for purposes of hour expenditure and expedition encounters. All other terrain is cumulative. For example, hex 0309 is a mountain only and hex 0311 is a cliff hex only.

(8.7) (correction) The last line of the first column of rules on page 6 was inadvertently omitted; it reads "A creature may be ported back to the shuttle in an..."

Facts for Fantasy

Edited by Susan Schwartz, Ph. D.

Roger of Asterby

Gerald of Wales, historian and storyteller, speaks of a knight of Lincolnshire called Roger of Asterby. While walking through his fields one day, Sir Roger encountered visions of St. Peter and the Archangel Gabriel. He tested these visions by requiring them to redeem from pawn his mailcoat which he had pledged to Aaron, the Jew of Lincoln. After they returned his mailcoat, he agreed to do their bidding. They sent him to lay seven divine commands before Henry II. These commands were: 1) The King should uphold his coronation oath and the laws of England; 2) no one could be sentenced to death without a trial; 3) inheritances must pass to their proper owners; 4) there should be no charge for justice; 5) Henry should take charge of his ministers; 6) right, in general, should be done; and 7) the Jews should be expelled without their pledges, which should be restored to the people who had pawned them.

If Henry executed these promises, Roger was told to say, and went on Crusade,

he would win seven more years of fruitful life. Henry agreed — for one night, and then reconsidered. He died in 1189 (presumably without those seven extra years), and so the commands Roger wanted enforced had to wait until 1215 and the Magna Carta in which many of them were incorporated.

How to Be a Spartan

Lycurgus, the legendary king of Sparta, was supposed to have set down rules by which the Spartans lived ever afterwards; their social code was unlike any other in Greece. At seven, a boy was taken in charge by the state. From ages fourteen to twenty-one, boys were grouped in age-classes and strictly trained. Adult males ate together in messes called *syssitia*. Though female Spartans also received military training and, relative to women in other city-states, possessed great power, Sparta cut down on homelife, separating the sexes to a degree that puzzled the rest of Greece.

To this social system was allied a deliberate austerity. Spartans were to scorn all unnecessary luxury. Lycurgus stressed this austerity to promote civil equality, and he forbade citizens to possess silver coins. Instead they used iron "spits" which the rest of Greece had replaced with silver in the 7th century B.C. Lycurgus redistributed the land so that each citizen had an equal portion.

Except for the Spartan habit of having two kings — one to rule at home, the second to lead troops — Lycurgus was credited with

creating the rest of Sparta's governmental structure. The assembly of citizens had the greatest power in classical Sparta: later riders placed on the archaic document called the Great Rhetra (*rhetra* = enactment) gave the kings and the council of elders (Gerousia) veto power. In addition to kings, Gerousia, and assembly there were five *ephors* or magistrates.

This society, which produced the most fearsome land army in all Hellas, was based upon two classes of subcitizens: the *perikoi*, who lived around Sparta and, though they had no vote in the assembly, were freemen, and the *heLOTS*, who were slaves.

The Greek Tyrants, A. Andrew, Harper Torchbooks, 1963

The Barnacle Goose

In the Middle Ages and the early Renaissance, story-tellers who enjoyed creating interesting animals spoke of the barnacle goose. They claimed that it was generated from the barnacle, the shell-fish which grows on a flexible stem and sticks to docks and the bottoms of ships. Probably this mistake started when some tenth-century naturalist mistook the flesh foot of the shell-fish for a gooseneck, the shell for its head, and the tentacula for a tuft of feathers.

In France this belief was so common that people were permitted to eat barnacle goose on fast days: after all, they were permitted to eat fish, and didn't the goose come from the barnacle?

Some people said that the barnacles

Science for Science Fiction

Edited by John Boardman, Ph. D.

Is Anyone Home in the Mansions of the South?

By comparison with other ancient religions, there are very few astronomical references in the Jewish scriptures. This is probably because ancient astronomy was bound up with star-worship. Except for some very early references like the Song of Deborah ("From high in heaven fought the stars, fought the stars in their orbits against Sisera"), the Bible expresses the conviction that the stars do not govern but are governed.

The greatest number of astronomical references occur in Job, where God suddenly steps into the book's philosophical discussion and asks the humans whether they think themselves competent to explain his creations and his judgments. In the 9th Chapter, prior to this interruption, Job anticipates this resolution to the argument in the following lines, as translated by the late J.R.R. Tolkien in *The Jerusalem Bible* (1966):

"The Bear, Orion too, and all of making, the Pleiades and the Mansions of the South." (9:9)

The four Hebrew terms are *ash*, *kešil*, *kimah*, and *khadrei ternen*. The translations of the first three are fairly well established, although some older translations follow an

error of St. Jerome and render *ash* as "Arc-turus." But *khadrei ternen* is an utter mystery. Some think it a reference to the signs of the zodiac — but these are called *mazzarot* or *mazzalot* in Job 38:32, which Tolkien renders as "the morning star."

Khadrei is an elided plural of *keder* (room) and *ternen* means "on the right hand" or, by extension, "south." It is the same Semitic root word that appears in the name Yemen. This could also be rendered as "secrets of the south," since *b'khader* means "in secret."

In recent years, several people have suggested a "secret of the south" which might qualify as the source of this passage. Several thousand years ago, light reached Earth from a truly staggering celestial event — a supernova in the constellation Vela. The remnants of this supernova are located in the Gum Nebula, the wreckage of a still earlier explosion named after its discoverer, Colin S. Gurn. The Vela Pulsar, which spins on its axis with a period of 0.089 second, is all that is left of the supernova.

The age estimates for the Vela supernova runs between 6000 and 11,000 years ago. From southern Asia it would have appeared as a star in the southern sky, bright as the full moon, and shining for a couple of years before fading from visibility. Its impact would have lasted in myth long after it had ceased to shine.

The principal proponent of the Vela supernova as the "secret of the south" is the philologist George Michanowsky, who puts forward his ideas in his book *The Once and Future Star*. His translations of ancient

Sumerian inscriptions are supposed to support this hypothesis.

Scientific American, December 1971; *New Scientist*, 11 March 1976; *Explorers' Journal*, December 1976; *The Historical Supernova*, David H. Clark & F. Richard Stephenson, Pergamon Press, 1977

The Fifty-Million Year Weather Forecast

Meteorologists do not have a great reputation for accuracy. Yet the meteorologist Greg Forbes has dared to make a forecast, in general terms to be sure, of the weather patterns that will exist 50,000,000 years in the future. Forbes' predictions, which appeared in the July-August 1974 issue of *The Sciences*, are based on the known present rates of continental drift, and the way in which geology affects the weather. For example, New York City is presently 74° west of London. In 50 million years this distance will extend to 100° as the Atlantic Ocean continues to widen. This drift will push Alaska into Siberia, re-establishing the Bering land bridge. This will prevent Arctic Ocean water from entering the North Pacific, and thus the coasts of Alaska and Kamchatka should become warmer. The wider gap between Greenland and Scandinavia will carry the Gulf Stream into the Arctic, so that Lapland, Iceland, and the eastern coast of Greenland will be made considerably warmer at the expense of western Greenland, Labrador, and eastern Canada.

The central United States is presently a "tornado alley," whose geographic formations promote the development of these

grew on trees, and only when they dropped into the sea did they turn into geese. In Lancaster, in fact, barnacle geese were called tree geese. Gerald of Wales, who has collected so many other strange tales, describes the barnacle goose as growing feathers after it enters the sea, and becoming bigger than a mallard, with black legs and beak, and white spots.

Folk-Lore of Shakespeare, T.T. Thiberton Dyer, Dover Press, 1983

Nerthus

Although worship of the *Magna Mater* or Great Mother-Goddess is most commonly associated with Mediterranean countries, Tacitus, one of the earliest cultural anthropologists, describes in the *Germania* how the Ingvaeni of the North worshipped a goddess called Nerthus. She was, like all early mother-goddesses, a fertility deity. Cattle were sacred to her. Once a year, during the spring festival, the goddess' image was drawn by cattle in a wagon over the land to bless it. This wagon was accompanied by priests who scourged themselves as they walked. After the ceremony, before the image of the goddess was restored to its island shrine, it was cleansed in the sea. The slaves who performed this ceremony were then put to death. Though people claim that the slaves were killed to preserve the secrecy of the ritual, the execution of the slaves is actually a holdover from the time when the goddess' consort was ritually killed because

dangerous whirlwinds. Forbes believes that similar "tornado alleys" will open up in China, and in east central Europe. However, the coast of China will suffer fewer typhoons, since Australia is drifting towards the equator and will occupy the region where they presently breed. The Indonesian islands will be squeezed between Australia and Asia, but New Zealand will drift off towards the Antarctic.

The tectonic plate on which Africa is located will drift further towards Europe, forcing the Turkish plateau upward until it becomes a second Tibet. The Straits of Gibraltar and the Bosphorus will be forced shut, causing the climate of southern Europe to become cooler.

Islands will drift into the Pacific, peeling off eastern Asia and western North America. Japan has already begun this process, and the volcanic peninsula of Kamchatka will follow it. California, which early explorers described as an island, will become one in fact, and its climate will more nearly approach the claims of its chambers of commerce. The famous San Andreas Fault will be the line along which the island of California will separate from the mainland. Eventually it will drift further to the north and west, collide with the southern coast of Alaska, and be subducted back downward under the earth's crust. But that will be in the future, even 50 million years from now.

Also Bear in Mind

The extinct European cave bear (*Ursus spelaeus*) was a large, ponderous, vegetarian edition of the brown bear that still exists in

he was a human representation of the dying and reviving god.

Tacitus also reports that Scandinavians called Swionr a queen rather than a king. This presence of a Scandinavian queenom represents a survival of the older matriarchal society which Indo-European sky-god worshiping patriarchies replaced.

The Germanic People, Francis Owen, College and University Press, 1980

Sail The Friendly Seas

Writing in the 2nd Century A.D., Lucian describes one of the great grain ships of the Rome-Alexandria fleet. It was one hundred and eighty feet long and forty-four feet from the deck to the lowest part of the hold. The mast was extremely high and the stern rose up to end in a gilded goosehead. Statues of the goddess Isis adorned the prow. Able to carry enough grain to feed Athens for a year, such a ship probably held between 1,200 and 1,300 tons of grain.

This ship was as big as the *U.S. Constitution* ("Old Ironsides") now preserved in Boston Harbor. It carried three times the cargo of any Atlantic merchantman before 1820. In ferrying 150,000 tons of grain a year from Egypt, Rome required eighty-five of these ships.

They were regarded, in addition, as an outstandingly comfortable way to travel. Even the Roman Emperor Vespasian, when returning from Egypt to Rome in 70 A.D., chose a grain clipper over any military vessel

Europe and North America. (The grizzly and Kodiak bears are races of this species.) Since it only lived in Europe, it has been extensively studied since serious palaeontology began in the last century. At one time, it was believed that the cave bear had become extinct because it produced a serious imbalance — many more males than females. The relative numbers of male and female specimens found in the collections were cited as evidence for this belief.

The Finnish palaeontologist Bjorn Kurten refutes this notion in his recent book *The Cave Bear Story*. He points out that a selection effect is operating here. Unlike the "cave man" or "cave lion," the cave bear really was a full-time cave dweller. It lived, bred, hibernated, and died in caves. Therefore, almost all the cave bears that ever lived left their remains in sites where they were preserved and can be collected and studied.

The earliest investigators were as much collectors as they were scientists. So, faced with caves containing the skeletons of hundreds of cave bears representing dozens of generations, they tended to remove the skulls of the huge, heavily fanged males, and leave behind the less spectacular females. Subsequent scholars, cataloguing collections, assumed the males had greatly predominated in the latter days of the species.

The Lost Subcontinent

The science fiction and fantasy writer H. P. Lovecraft (1890-1937) kept up well with current developments in the sciences, and

in the navy because they kept to the open sea, did not waste time in daily stops, and offered luxurious accommodations — a very agreeable thought, given that the journey would take two months. Very often such a ship might carry as many as six hundred passengers.

The Ancient Mariners, by Lionel Casson, Oxford, 1969

The Werewolf Prince

In the 12th Century *Lay of Prince Igor* (who was one of the great Russian legendary heroes), the poet describes Vseslav, Prince of Polotsk who died in 1101. In 1068 he ruled Kiev for seven months. He was thought to be a sorcerer. The poet describes him as ruling the cities as befits a prince during the daytime, but turning into a werewolf at night. In his werewolf guise, Prince Vseslav could travel from Kiev to Tmutarakan on the Black Sea, an immense distance to cover in one night on two feet — or on four. When the bells of the church in his native Polotsk rang, he could hear them in Kiev, the city he wanted most to rule. Despite his sorcery and his courage, he too suffered the judgement of God, the poet says.

Medieval Russia's Epics, Chronicles, and Tales, edited by Serge A. Zenkovsky, Dutton, 1974

God and Goddess of Japan

When heaven and earth began, says Japanese mythology, there first arose seven generations of gods. Last of these were the pair Izanagi and Izanami, who received the

often used them in his stories. His 1936 story "At the Mountains of Madness" takes an expedition into the Antarctic, where relics are found of a non-human civilization that extended from the Mesozoic well into the Cenozoic (Age of Mammals). As the continent turned colder, its inhabitants fled into cities of refuge now located deep beneath the Antarctic Ocean.

At that time the continental drift theory was not well regarded by geologists. But, thirty years later when it once again seemed plausible, geologists located a minor problem. The continents of South America, Africa, and Antarctica could be fitted together, and the fossils of the same lumbering mammal-like reptiles were found on all three. But there was a gap where they joined.

In 1974 this gap was filled. Cores taken from a research ship indicated that a piece of continental material existed, under the waters of the Antarctic Ocean about 1400 kilometers east of South America and 800 kilometers east of the Falkland Islands. This seems to be the missing piece that split off before the Age of Dinosaurs, when the continents separated.

New Scientist, 4 July 1974

Who's Been Sitting in our Niche?

The concept of an "ecological niche" dominates much discussion about evolution. There are certain roles available in nature, and animals evolve to fit them. At one time in Earth's history, for example, the role of "fresh-water-dwelling fish-eater" was filled by the Paleozoic amphibian Eryops; later the

order to fertilize the moving earth. Izanagi stirred the water of the sea with his celestial lance and created land, including all the islands of Japan. Their offspring were gods.

When the goddess Izanami died after giving birth to the child who became the god of fire, her husband lamented and cut off the child's head. His blood gave birth to even more gods.

Then Izanagi went down to hell to attempt to get his wife back. The place was called, variously Yomi-tsu-kuni (land of darkness), No no Kuni (land of roots), and Soko no Kuni (the deep land). A sloping and winding road begins in Izumo province and leads underground. There is another road to hell: a bottomless abyss on the seashore which engulfs all the water of the sea and sweeps away sins and impurities.

In this kingdom are palaces and cottages, the homes of male and female demons. These female demons are called *shiko-me* (ugly women) or *hise-me* (frowning women.)

When Izanagi went down to hell, he met his wife who refused to leave with him because she had already tasted the food of the underworld. Izanami suggested that she talk matters over with the god of hell and begged Izanagi not to look inside the house, but the god followed her and entered the palace. There he found Izanami's body decomposing and watched over by eight Thunders. Humiliated by this revelation, Izanami set the female demons after her husband. When

Izanagi reached the end of the slope to Hell, he plucked three peaches and threw them at the Thunder gods and soldiers who accompanied the female demons. When they fled, he blocked the entrance to hell with a boulder.

Izanami had also followed her husband out and was trapped now that the road back into Hell was blocked. She and her husband swore that they would divorce one another.

Larousse Encyclopedia of Mythology

Soma

Most readers know of soma because they have read Aldous Huxley's *Brave New World* in which soma is presented as a hallucinogenic drug dispensed to Alphas, Betas, Gammas, Deltas, and Epsilons alike as a way of making them happy. But Soma (or Haoma, as it is sometimes called) is a plant, and an essential part of the sacrificial offerings in Indian mythology. It is also the juice of the plant — obtained by squeezing it between two millstones — and is called nectar, the drink of the gods. Tasting it ensures victory over death.

Soma is also a god who appears in many different forms. At different times he is a celestial bull, an embryo, a bird, a water-giant, and even the greatest of poets, a source of inspiration. The Vedic hymns, called *Puranas*, regard him simultaneously as an immortal food and the moon god, born from the churning of the sea.

As the moon, he has twenty-seven

wives, each one a position of the moon during the lunar month. That the moon waxes and wanes is explained in two ways: first that the gods drink the soma that the moon contains; and second, that Soma's twenty-seven wives, the daughters of Daksha, were unequally favored by their husband. Because Daksha thought Soma paid too much attention to one of the wives, he condemned him to die of consumption; his daughters' pleas made him change Soma's punishment to a temporary thing.

New Larousse Encyclopedia of Mythology

The Bear Festival

For the Ainu in Japan, hunting the bear was considered the most useful way in which a man could possibly spend his time. They paid taxes in skins, ate the bear's meat, and used its fur for clothing. Because the bear was so important to their lives, they also conciliated the deity that they believed dwelt inside the bear.

After a bear was killed, the Ainu would sit down and admire it and offer it gifts. If it were merely trapped or wounded, the hunters would apologize before slaying it. The skulls of slain bears were set up on sacred posts and offered libations of millet beer and sake. Many Ainu claimed descent from bears.

Toward the end of winter, the Ainu prepared for their bear-festival. They caught a bear cub, raised it tenderly with their own children, and then imprisoned it for several

phytosaur took over this niche, then during the Age of Dinosaurs it was occupied by the crocodile. The crocodile still quite successfully fills this position in the tropics, but the otter occupies it elsewhere — except in Australia, where there does exist a marsupial equivalent.

Humanity itself once started out in an ecological niche which might be described as "ground-dwelling social primate." But the fossil evidence indicates that other primates have at one time or another tried out this same niche.

The first to do so was a creature which stood neither in our line of ancestry nor in that of the great apes. (These two stocks seem to have diverged some 35 or 40 million years ago in the late Eocene.) The common ancestor had arms and legs of about equal length, and molars, a type still common to apes and humans, though our more complex jaw movements cause wear on the molars to be completely flat, rather than irregular as in the apes.

The apes went in for arboreal specialization, developing longer arms and bow legs, and walking with their knuckles when forced to the ground. Their canine teeth became large and formidable, and formed with the first premolar an interlocking cutting apparatus quite different from the teeth arrangements of humans and their ancestors. Since jaws and teeth survive better than just about any other part of the body, paleontologists can immediately tell apes from humanoids in the fossil record.

The human line of descent developed, by contrast, the unique arched foot which

makes us such good walkers, and the unique arched palate which makes us such good talkers. These features already seem to be evident in *Ramapithecus*, a wide-ranging humanoid first discovered in the famous fossil beds of India's Siwalik Hills in 1934. Their remains have been dated some 12 or 14 million years ago, in the late Miocene, as open grasslands began to replace heavy forests in India and Africa. *Ramapithecus* is now recognized as being in the direct line of human ancestry, although it would be nice to have more material from elsewhere than the skull.

Ramapithecus already had competition for the "ground-dwelling social primate" role. This was *Oreopithecus*, first discovered in 1871 at Montebello, Italy. A complete *Oreopithecus* skeleton turned up at Becenello in 1968. The hipbone suggests an upright stature, and the face had human characteristics rather than the ape-like muzzle. The teeth, however, are unlike anything found in the ancestors of either humans or apes. *Oreopithecus* might have been a separate primate line, neither humanoid nor ape nor monkey. The similarities with humanity could be due to "convergent evolution," the same process of adaptation that put shells on both turtles and armadillos and makes the placental moles of South America similar in appearance to the marsupial moles of Australia. Apparently if you live like a human being, you start to develop some of the characteristics of a human being.

Why *Ramapithecus* survived and evolved, and *Oreopithecus* did not, is a question

which may never be answered. To judge from the way that later branches of human evolution dealt with each other, the issue may even have been settled by means of direct conflict.

The apes, many millions of years later, developed one ground-dwelling form which showed signs of convergent evolution with humanity. This was the huge *Gigantopithecus*, the largest primate that ever lived. The animal is known from the Pliocene of India, but most fossils come from the early and middle Pleistocene of China, from three million to about a half million years ago. (In fact, the first evidence of the existence of *Gigantopithecus* were teeth found in a Chinese drugstore by von Koenigswald nearly 50 years ago.) Being too big for the trees, *Gigantopithecus* developed many of the specializations seen in humans for a ground-dwelling life. The molars were worn flat, indicating a human way of chewing. The canine teeth and incisors were small, and the tooth rows diverged as they do in humans, rather than being nearly parallel as they are in other apes.

However, this two-meter tall ape came too late. By the Pleistocene, humans were varying their vegetable diet by hunting. A heavy, lumbering *Gigantopithecus* would have been an easy target for a hunting party of early humans. There is some speculation that *Gigantopithecus* may survive as the "abominable snowman" (*Yeti* or *Yeti*), though this will have to remain doubtful unless someone can actually manage to catch one of them.

There is one surviving primate which is

years until it grew big enough to kill and be eaten by the entire village. This ceremony generally takes place in September or October, once the bear is grown. First the Ainu apologize to their gods for killing the bear. Then they invite the entire community to what they expect will be a very pleasant feast. A special orator addresses the bear, calling it a precious little divinity (!) and asking it to speak well of them to its parents.

The bear is then ritually executed by strangling. Frequently, the men drink its blood in a rite of sympathetic magic to ensure that they will possess its courage. The bear is beheaded, and invited to be a guest at the feast, during which all the people praise it. The head is placed upon a pole and venerated because the Ainu believe that the spirit remains in it.

The Gilyaks, a people living in Eastern Siberia, hold a similar festival once a year in January. Unlike the Ainu, who eat the bear's flesh raw, the Gilyaks cook it slowly and ritually. Only the eldest men in the village may participate in the cooking. They seethe the bear's flesh in snow, since water is taboo when cooking bear meat. Before serving the meat to anyone else, it is offered to the bear-spirit (represented by the bear's head), and the women tie bandages around the head "in order to dry the tears" that the bear weeps. Everyone who partakes of the bear is given a light blow with a branch of fir; this is punishment for having mistreated a sacred animal.

The Golden Bough, Sir J.G. Frazer, MacMillan

The Man-Haters of Lemnos

Because the men of Lemnos had fallen madly — and collectively — in love with some captive maids from Thrace, their wives had been fired by Venus with a fierce hatred of them. They killed their husbands and then, so that their husbands' kin could not bring them to justice, they killed all the other men on the island. Of all the women of Lemnos only Hypsipyle spared her ancient father Thoas, the king. She shut him in a hollow chest and set it adrift, leaving it to the gods whether he should live or die. Eventually, fishermen dragged him ashore at the island of Oenoe, named after the water-nymph who had once borne King Thoas a son.

The women tended the cattle, wore bronze armor, plowed, and did all the work that their men had done in addition to their own tasks. They also had to fear reprisal from the Thracians.

When they saw the *Argo*, Jason's ship, sail by, they put on their armor and ran down to the beach because they expected that the Thracians had come to seek vengeance. A herald persuaded the Lemnians to receive the men of *Argo*; more powerful than the herald's words were the arguments of Queen Hypsipyle's nurse, who saw in these men the perfect solution by which the young women of the island could repopulate it.

While Hercules guarded the ship, Jason and all his men accepted the hospitality of the women. But whether or not Lemnos raised a thriving generation of children from that

particular shore leave, Apollonius Rhodius' *Argonautica* does not say.

Argonautica, Apollonius Rhodius, Loeb Classical Library, 1957

Class and Clergy

One of the most cherished misconceptions about the medieval church was that it provided a way for a gifted man to rise in the world despite a humble beginning. Like all good misconceptions, it contains elements of truth. A royal serf freed by Charlemagne did indeed rise to be Archbishop of Rheims, but during his entire tenure in that office, Archbishop Ebo was opposed by the nobility and doubtless reminded that his ancestors had been goatherds and not royal ministers. Also the Abbot Waldo, related to the royal family of Charlemagne, once swore while feuding with the Bishop of Constance, that as long as he had three fingers left on his right hand, he would not acknowledge a superior of lower birth than himself. He was prepared not just to snub the bishop, but to fight him. In England, the story circulated for centuries that Becket, Henry II's chancellor and later the rebellious archbishop of Canterbury who was canonized as St. Thomas a Becket, was of lowly Saxon blood despite records to the contrary — another proof of people's fondness for stories which trace men's climbs from poverty to ecclesiastical power.

The Carolingian Empire, Heinrich Fichtenau, Harper, 1964

making a fair success of the social, ground-dwelling role — the baboon. However, they have faced such fierce competition from our own species that they can perhaps be pardoned for the mean disposition and bad manners for which they are proverbial. Million-year-old garbage dumps in Africa have shown that baboons were the preferred prey of our ancestors, who would smash their skulls with rocks or with antelope legbones. The predatory bands of chimpanzees which Jane Goodall has described also prey on baboons. In fact, she has seen young chimpanzees play with young baboons one day, and kill and eat them the next, which should confirm the fact that chimpanzees are humanity's nearest living relatives. The intelligence and ferocity of any animal that regularly preys on baboons must be great indeed. Perhaps such predation has developed the tight tribal organization of baboon packs, who set out young males as sentries while the older males can amuse themselves with the females. The social evolution of baboons is still going on. Egyptian paintings indicated that they kept pet baboons; no human of the present day would consider these beasts even remotely domesticable.

Not from the Apes, Bjorn Kurtén, 1970

The True Unicorn

The legend of a beast with one long horn in the middle of its forehead can be traced back about 2500 years. Like all the best legends, it has many sources: the Indian rhinoceros; the ancient custom of drawing

an auroch in such severe profile that it appeared to have only one horn, the rare Arabian onyx antelope whose bones were supposed to have medicinal properties; a mistranslation of the Hebrew word *re'em* (aurochs) into *unicornus* in the Latin edition of the Bible; and the custom, which still exists, of transplanting the horn-buds of a newborn calf or kid so that they grow as a single horn in the middle of the forehead.

There did in fact once exist a beast, recent enough to have been encountered by humans, which had one long horn in the middle of its forehead. This was the *Elasmotherium*, the largest horned rhinoceros that ever lived. It was the culmination of an evolutionary line separate from that of the living rhinoceri, whose horns grow on their noses. The horns of rhinoceri are not true outgrowths of the bones of the skull, as are those of cattle, sheep, and antelopes. They are concretions of hair, which take root on the bone just as do the transplanted horn-buds of unicorned cattle.

Elasmotherium was the size of a modern elephant, and lived in Siberia during the last glaciation. It must have carried a thick coat of hair, like the woolly rhinoceros (*Coelodonta*) of Ice Age Europe. It was hunted by the ancestors of the Tungus people, who still inhabit eastern Siberia and tell tales about a beast that once lived in their land, so great that an entire sledge was needed just to transport the single horn. Certainly the unicorn legends emphasize the strength and ferocity of the animal, and say that it could defeat an elephant in single combat. *Elasmotherium* would meet this condition

better than any of the other possible sources of the legend.

Modern fantasy artists tend to represent the unicorn as a white horse with a single spiral horn, and a flowing mane. The spiral horn comes in from the *narwhal*, an Arctic whale whose males bear a horn of this sort, about two meters long. But the horse imagery is entirely modern. In the Middle Ages, when the Bible's testimony caused the unicorn to be accepted as existing, artists drew it as having the cloven hoof of the goat or deer, rather than the single hoof of the horse. This not only testified to the share of the aurochs in the myth, but also agreed with the Christian view of the unicorn as a Christ symbol. It was unthinkable to have Christ symbolized by anything but a "clean" animal as the Old Testament distinguished them.

The Age of Mammals, Zdenek Burian; The Age of Mammals, Bjorn Kurtén; The Longfist, the Dodo, and the Unicorn, Willy Ley; The Lore of the Unicorn, Odell



DragonNotes

A Regular Feature for DragonQuest Players

by David Ritchie

We had to bump most of this spring's *Dragonquest* product into the summer or fall as a result of scheduling difficulties (too much product impacting at the same time), but except for a temporary delay, we are on track with the project. Items currently in the Art Department include *Arcane Wisdom*, *The Frontiers of Alusia* and the *DragonQuest Random Dungeon Kit*. Currently in development is our *Monsters* supplement, *World Generation* (our GM's supplement), a *Book of Days* (which won't be out for a year and a half), a "boxed world," a "boxed city" and a couple of adventures (one by Paul Jaquays tentatively titled *Enchanted Wood* and a mini-adventure by Jerry Klug called *The Camp of Allah-Akabar*).

Meantime, we are still playing around with the idea of having more mini-adventures in *Ares* and, perhaps, publishing some sneak peeks at future *DragonQuest* products in the form of short excerpts. The final decision on that, however, awaits the will of the feedback. So get those cards and letters in and let us know what you want. We, in turn, will provide just about anything (within economic reason) that you desire in the pages of *Ares*.

Addenda

We are currently working on a new errata sheet for *DragonQuest* which concentrates mainly on making alterations in the existing booklets to clear up what various players have perceived as being serious problems with the rules. Often these are numbers changes for purposes of "balance" (read fairness). A preliminary listing of these changes is given below.

BOOK ONE: Character Generation, Combat

[8.1] On the **Social Status Table**, the *Money Multiplier for Poor Trash* should be "1/2" and that for *Imperishable Gentlefolk* should be "3".

[8.5] On a roll of 01-02, a character receives 10 (not 5) Silver Pennies.

[8.7] Characters should be equipped with armor, shields and weapons (not wagons).

13. Maneuver Actions

The third paragraph should state that a character moves through contiguous *hexes* (not *hexides*).

[13.1] A character may *Move* through up to 5 (not 6) contiguous hexes through his Front Hexides at a cost of 1 Action Point to enter each hex.

A character implementing a *Move Action* must cease all movement (but may change facing) upon entering the Strike Zone of a hostile character.

[16.6] A character may only attack Hostile characters who are in the *same hex* or in at least one hex of his Attack Zone.

18. Grievous Injury

"B" weapons inflict a specific injury on dice rolls between 21 and 80 (not 20 and 80).

[18.5] Grievous Injury Table

(see page 28)

20. Unarmed Combat

The Experience Multiple for unarmed combat is 150. Also, the last sentence in the third paragraph should read: "If the result is greater than 4 times the character's Agility, the character inflicts a number of Damage Points on himself equal to the Protection Rating of the armor worn by the target character (2 points if the target is unarmed, not unarmed).

[21.5] A character may attempt to disarm another character in either *Melee* or *Close Combat* (not just in *Melee*).

23. Infection

Cloth armor only protects against infection if the *only* wounds suffered by the character were Class A (from puncture-type weapons).

[16.1] A -5 modification applies if a target is currently implementing either Action M, S, or W.

[19.3] Weapons Table

The *O Dachi* should cost 35 (not 30) Silver Pennies. Shot should weigh 2 pounds for 20.

The Character Record on the back page of Book One should use Silver Pennies (not gold) to calculate the value of coinage that is carried.

BOOK TWO: Magic

[32.2] The effects of Ritual Purification should be measured in minutes (not hours) equal to Rank + D10 + the character's unmodified MA.

[32.4] Only a Namer may dispell a Ward.

[36.4] The Spell of Invisibility (G-8) has a Base Chance of 45%.

[37.6] The Spell of Healing (S-7) does not work at any range. The Adept must touch the target.

[40.4] The Spell of Conjuring Mist (G-6) has a duration equal to 1 minute \times D10 \times Rank (\times 1, if unranked).

[40.7] The Ritual of Controlling Weather (R-1) causes 6 inches of precipitation to fall (*plus*, not *minus*, six inches per Rank).

[41.6] The Spell of Liquid Purification (S-1) may only be used to turn *any aqueous* substance into potable water.

[41.4] The Spell of Seablessing (G-14) decreases the chances of ill effects occurring by 5 (not 1) + 1 per Rank.

[43.5] The Base Chance for the Ritual of Summoning Animals (Q-1) is 55%.

[46.3] It takes 10 seconds (1 - 1 second per Rank) for the Adept to become *invisible* when employing the Projected Image talent (T-2). Also, a note to T-3: the Base Chance of conception is normally 5%.

[48.5] The Tarot is talent Q-1.

[47.3] Imps have a 7% chance of knowing past, present and future events, but will seldom speak truthfully of what they know.

[47.5] The Base Chance of a Ritual being a success is increased by 3 (not 5) for each hour spent in Ritual Cleansing (Q-1 of the College of Greater Summonings).

[47.7] The Earl, Malthus, may not be bound. The Kings, Asmodey and Palmon (and his attendants), may not be bound either.

BOOK THREE: Skills, Monsters, Adventure

[50.8] A Willpower (not Courage) Check is necessary whenever the effects of a paralysis must be determined.

[54.2] A *flute* is an example of a woodwind instrument. A *lute* is, of course, a string instrument. Sorry 'bout that.

[55.4] The formula for determining the effect of prolonging life is $D10 \times$ (Healer's Rank) + (patient's Endurance). Ignore the plus sign after D10 in the rules.

[58.2] The Military Scientist may not attempt to rally a being who has fled for over 30 + (5 \times Military Scientist's Rank) seconds. Ignore the minus sign after 30 in the rules.

VIII. Monsters

The following monsters should have no MD: Boar, Camel, Ox, Stag, Woolly Mammoth (and Mastodon), Hippogriff, Pegasus, Crocodile, Gila Monster, Hydra. No MD modifiers are used to determine if they successfully hit a target.

[66.3] Under the heading for Ox, it should be pointed out that the same animal existing in nature in a non-gelded state will have identical characteristics except that it will run 100 yards per minute faster and will attack without provocation.

[68.4] Weasels are *Uncommon*, not *Infrequent* in appearance in the game. The value of their pelts will be quartered if taken in any season except winter.

A Wolf has a 60% (not minus 60%) Base Chance of doing damage by biting.

[69.1] Pike are *not* found in oceans, folks! Like Piranha, they will be found in streams, rivers, marshes and lakes.

[69.3] Krakens found in Arctic waters will probably be users of other water magic in addition to the maelstrom spell.

[70.1] The value of treasure found on Ogres will be (D - 5) \times 100 SP.

[70.3] Like Dwarves and Halflings, Hobgoblins will venture into sunlight, though they prefer shadow. Gnomes have a 30% chance of detecting secret doors, traps and passages.

71. Gorgons may attack in Close Combat with their hair.

74. One does not become a Vampire by making the Greater Pact of the College of

Black Magics, but by performing the Ritual of Becoming Undead or by being drained by a Vampire. In order to prevent someone from rising from the grave, it is necessary, in addition to staking their heart to the ground, to stuff their mouth with garlic, and it helps to cut off the corpse's head and turn it face down. A Vampire may continue to drain his victim during feeding even when the Vampire has absorbed all possible Fatigue and Endurance. The remainder of the victim's Fatigue and Endurance is lost (i.e., spilled on the ground). Vampires dislike (are somewhat afraid of) white roses.

An individual drained by a Wight becomes a Night-Gaunt (not a Wight).

The number of Wraiths normally found together is from 1 to 10 (not 2-10).

78. Only Warhorses can enter Close Combat. Other Riding Animals in 76 may not intentionally do so. Warhorses may kick at targets in either their front or rear hexes. Warhorses are Uncommon (not Infrequent).

84. There is no limit to the Rank achievable with a Geas.

86. Experience Point awards are made for each five hours of play whether an adventure is completed or not. Thus, in playing SPI's *The Palace of Ontolce* (requiring several sessions to finish), it is possible that three or four separate awards will be given each player.

[36.2] The Experience Point awards in *DragonQuest* are some of the most restrictive in role-playing. Too much so, we feel in an effort to eliminate Monty Hall-type worlds, we went a little too far and the result is that it is far too difficult to both progress and to maintain existing skills. Therefore, the awards for Mercenary Level characters should be increased from the current 300 EP's to 600 EP's. The basic awards for Adventure Level characters should be increased from the current 500 EP's to 900 EP's. The awards for Hero Level characters should be increased from the current 750 EP's to 1200 EP's. In addition, a character is at Adventurer Level if he has 10 abilities at Rank 3 (not 4) or above. He is at Hero Level if he has 10 abilities at Rank 6 (not 8) or above. Abilities include talents, spells, rituals, and skills (including separate weapons skills).

[37.1] A character must have used an ability on the previous adventure in order to gain Rank with that ability. He need not have done so successfully. Thus, it is merely necessary to attempt a spell (not to actually successfully cast it) in an adventure in order to subsequently gain Rank with that spell.

[37.3] The text of the second paragraph should read as follows: "A character is assumed to use any weapon *unranked* until he improves his ability to Rank 1. He must achieve Rank 0 before progressing to Rank 1." The idea here was to require players to

become familiar initially with a weapon (achieve Rank 0) without any real benefit before becoming truly proficient with the weapon. Rank 0 accordingly offers no benefit to a character. However, he must achieve this Rank before achieving Rank 1. It is *not* necessary to use a weapon during an adventure in order to achieve Rank 0.

[37.4] An ordinal number is that numerical part of a spell's identification code. Thus S-14 has an ordinal number of 14.

[37.5] Demonic aid may be used to increase Rank at the rate on one Rank increase per ability per session. Ranks raised in this manner do not require an expenditure of time or money nor the practice of the ability during the previous adventure.

[31.4] Sandals cost 1 SP (not cf). A 3 course meal weighs 32 ounces. A warhorse weighs one half ton (not pound). A quiver of 20 arrows costs 5 (not 6) SP.

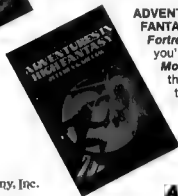
[37.7] Giant Macs cost the same EP's as Maces to progress in Rank. Giant Axes cost the same as Battle Axes. Great Spears cost the same as Spears. Great Glaves cost the same as Glaves. Giant Bows cost the same as Long Bows.

In about a month we will add this information to that on the existing errata sheet and make it available to *DragonQuest* players for the investment of a stamped, self-addressed envelope. ■■

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Designer's Notes

Universe

Our science-fiction role-playing game is just a month away from deadline time, and it looks like we just might make it! All the elements of the game are now resolved and testing of whole adventures has been underway for several weeks. A few days ago I subjected five players to a harrowing exploration and information-gathering mission.

The planet *Laidley* in the 82 Eridani system had been explored and abandoned a few years previous to the outset of the adventure. About 10 of the original explorers had not returned from Laidley with the party and were declared missing, presumed dead. A wealthy merchant believes that some of the missing party (to which he is related) is still alive and he has also been told of some interesting creatures on Laidley, so he organizes an expedition (our five characters) to return to the planet for this dual purpose. The five man expedition is well equipped for its 20-day task (after which the merchant's ship will return to retrieve them) with a large ATV and light weapons.

Things start out well; the characters encounter and capture a few of the local creatures. They notice, however, that the roads and trails are much more developed than they expected and there are many new ones leading to unknown destinations. Then they begin running into the missing explorers, one at a time.

Well, we are planning to include the outline for this adventure in the *Universe* package so I do not want to give anything more away. Suffice it to say that in the play-through only two of the characters survived to leave the planet (with nothing but their expedition suits) and the world was soon renamed *Spiderweb*.

Character Generation

The character generation system is complete and we have used it to generate some interesting individuals. Here are two of the characters that participated in the above adventure.

Aram Ben Hellisar was born into the local establishment on a planet with .7 G's and grew up in a barren, hilly environment with very hot temperatures. His social background and early evidence of good coordination led him to study the military, business and the body. At age 20 he chose to capitalize on his high strength, dexterity, agility, mental power (bordering on the psionic) and wealth by becoming an armed trader, exporting and importing goods in hazardous areas of the empire. After 16 years of experience he had accumulated trading, linguistic, pilot, gunnery and navigation skills. His cash had been increased by a factor of four and he owned an excellent business/analytical computer.

Michael Puidokas was born into the skilled tech class on a planet with Earth-like gravity. He spent some of his childhood in cities but did most of his growing up in a lightly vegetated mountainous area with a mild climate. His excellent physique and love of people led him to study the body and the humanities extensively. At age 20 he joined the local law enforcement agency where his high strength and endurance soon allowed him to become a lawman, wandering his

planet executing justice in less developed areas. Although he did not get rich from this, Michael acquired many skills in his twelve years of service. He knew the ins and outs of geology, mining, law, jet craft, ATV's and many types of hand weapons. He owned a plastic pistol (for avoiding detection) and a paint gun (an advanced hand-held laser weapon). Unfortunately, Mr. Puidokas did not survive the expedition to Laidley.

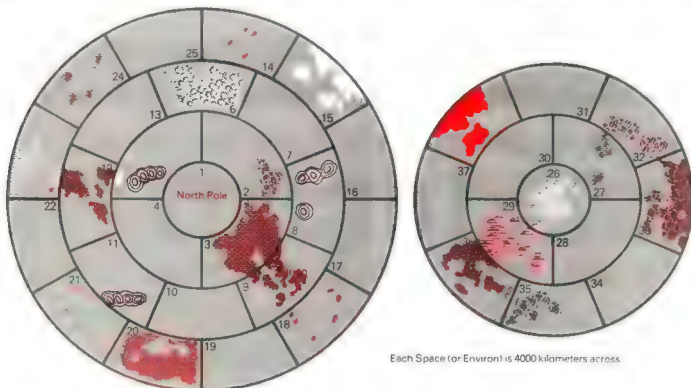
Planet Generation

The planet generation system in *Universe* has proven very successful, and popular with the playtesters. The following planet is an example of one of many types of worlds that may be created step-by-step using the system.

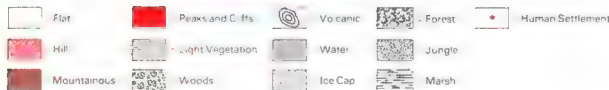
The *Star Orionis* (spectral class F6) is 26 light-years from our sun. It has five planets of interest in orbit. *Titus* is one and a half Astronomical Units (about 210 million kilometers) from Orion. Titus is slightly larger than Earth with a gravity of 1.3 G's. It has a spectacular set of rings and, orbiting further out, a small moon. Eighty percent of its surface is water (simple purification is required for drinking) and its atmosphere is like that of Earth's, with a few irritants that may be removed with a mouth filter. Titus rotates quickly; its day is only 15 hours long. Somewhat warmer than Earth, the equatorial band rarely drops below 100 degrees Fahrenheit and one small icecap covers the south pole.

The planet has been undergoing exploration and colonization for 80 years and now has about 20,000 humans in scattered settlements. Titus has a small spaceport in Orion, its largest town (6000 people) with limited service to other planets in the same system but no interstellar facilities. The colonists generally live in a manner similar to life

(continued on page 16)



Each Space (or Environ) is 4000 kilometers across



RAGNAROK

The Twilight of the Gods

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Read This First:

The rules to *Ragnarok* are organized by major topics arranged in the order in which they occur in the play of the game. Each such major topic is given a number and a name below which is given (usually) a General Rule or description which summarizes the rules in that Section. This is usually followed by numbered paragraphs called Cases, which give the specifics of the rules. Note that the numbering of the Cases is a decimal form of the Major Section number. Players should examine the map and counters then quickly read the rules (without trying to memorize them). Then the game should be set up to play and a trial run made.

Rules Questions

Should you have any difficulty interpreting the rules, please write to SPI, phrasing your questions so that they can be answered by a simple sentence, word, or number. You must enclose a stamped, self-addressed envelope. We cannot guarantee a proper answer should you choose to phone in your question (the right person is not always available) — and since SPI has published hundreds of games, no one individual is capable of answering all questions. Write to:

SPI
Rules Questions Editor for Ragnarok
257 Park Avenue South
New York, New York 10010

- 1.0 Introduction
- 2.0 Game Components
- 3.0 Game Terms
- 4.0 Sequence of Play
- 5.0 Movement
- 6.0 Engagement and Disengagement
- 7.0 Incapacitation and Recovery
- 8.0 Combat
- 9.0 Combat Results
- 10.0 Special Abilities
- 11.0 The Rainbow Bridge
- 12.0 Asgard
- 13.0 Reinforcements
- 14.0 Victory Conditions

REMOVING THE RULES FROM THIS ISSUE:

Open the magazine to the center; bend the staples with a penknife or screwdriver; lift out the rules and close staples.

[1.0] INTRODUCTION

Ragnarok is a game depicting the struggle of the Asir race of Norse gods against an invasion of enemies led by the traitorous god, Loki. The map depicts the Plain of Vigrid, lying between the Rainbow Bridge and the city of the gods, Asgard, where the battle takes place, and the playing pieces represent warriors, Valkyries, Frost Giants, Fire Giants, and such celebrated individuals as Odin, Thor, Loki, and the Midgard Serpent. Each player maneuvers his forces across the map in an effort to fulfill his Victory Conditions. To win, the player commanding the invading Jotun forces must destroy Asgard, thus bringing about Ragnarok, the "twilight of the gods." The Asir player must reject the Jotun invasion to win, thus postponing Asgard's fall.

[2.0] GAME COMPONENTS

Each copy of *Ragnarok* should include the following components:

- One 17" x 22" game map
- One sheet of 100 die-cut cardboard playing pieces
- One rules booklet (bound into *Ares* edition)
- Three six-sided dice (not included in *Ares* edition)
- One game box (not included in *Ares* edition)

If any of these components are missing or damaged, fill out the enclosed Complaint Card (not included in *Ares* edition) and return it to SPI with the appropriate items checked. Those who have the *Ares* edition of *Ragnarok* should address complaints to:

Customer Service
Simulations Publications, Inc.
257 Park Avenue South
New York, New York 10010

Note: The process used to manufacture the die-cut playing pieces used in SPI games sometimes results in colors from one piece overlapping the edge of another, or in the characters being printed slightly off-center. SPI cannot replace counters displaying such minor manufacturing inaccuracies. Only counters that are illegible can be replaced by SPI.

CASES:

[2.1] The map represents the Plain of Vigrid, where Ragnarok occurs.

A hexagonal grid is superimposed on the map to regulate the movement and positioning of playing pieces. Each hexagon (or hex) represents one league (about three miles) from side to side, and each Game-Turn represents the passage of 30 minutes.

[2.2] The game includes various charts and tables whose uses are explained in the appropriate rules Sections.

The charts and tables used in *Ragnarok* are the Terrain Effects Chart, Disengagement Table, Mortal Enemy Combat Modification Summary, Damage Table, Rainbow Bridge Collapse Table, Attack Ratings Modifications Summary, and Summary of Special Abilities. In addition, the Endurance Level Track and the Rainbow Bridge Track — both printed on the mapsheet — are used to record the progress of certain game functions.

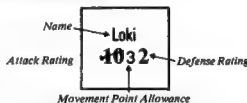
[2.3] The counters represent the Asir and Jotun forces that fight on the Plain of Vigrid.

There are three types of counters: ground units, Valkyrie units, and heroes. Each major god and mythological creature that participates in the battle is represented by a hero counter. Each ground unit represents a group of several thousand warriors, Frost Giants, or Fire Giants. Each Valkyrie unit represents a group of Valkyries.

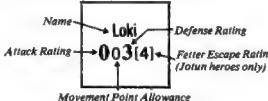
The Asir player controls warrior, Berserk warrior, and Valkyrie units, plus Odin, Thor, Tyr, Vidar, Heimdall, and Freyr. The Jotun player controls Frost and Fire Giant units, plus Loki, Fenrir, Hrym, Surt, Garm, and the Midgard Serpent.

[2.4] Sample Counters:

HERO COUNTER: Front



HERO COUNTER: Back (Incapacitated)



UNIT COUNTER: Front











UNIT COUNTER: Back (Reduced strength)









[2.5] Summary of Counter Types:







AESIR COUNTERS

Front		Back
	Hero	
	Ground Unit (Warrior)	
	Ground Unit (Berseker Warrior)	
	Valkyrie Unit	

JOTUN COUNTERS

Front		Back
	Hero	
	Ground Unit (Fire Giant)	
	Ground Unit (Frost Giant)	

GAME MARKERS

Front		Back
	Endurance Level	
	Melee Location	
	Incapacitated Unit	

[3.0] GAME TERMS

PLAYING PIECES

It is important to distinguish among the various types of playing pieces in the game. Note that the term **counters** used in the rules includes all units and heroes. The term **units** refers to both ground units and Valkyrie units. The term **ground units** includes warriors, Berseker warriors, Frost Giants, and Fire Giants.

The terms **enemy** and **friendly** are used to distinguish the playing pieces (and actions) of one player from those of his opponent. All Aesir counters are friendly to the Aesir player, and all Jotun counters are enemy to the Aesir player — and vice versa. The Jotun Combat Phase (see 4.0) is the friendly Combat Phase in relation to the Jotun player, and it is the enemy Combat Phase in relation to the Aesir player.

COUNTER VALUES

A counter's **Attack Rating** quantifies a basic ability to damage an enemy. The more powerful a counter, the **higher** its Attack Rating. An Attack Rating may be modified during combat by terrain and other factors described in the appropriate rules Sections.

A counter's **Defense Rating** quantifies a basic ability to withstand an attack by an enemy counter. The more powerful a counter is defensively, the **lower** its Defense Rating.

The **Movement Point Allowance** printed on a counter indicates the number of Movement Points the counter may move in a single Movement Phase. The number of Movement Points necessary to enter each type of hex on the map is summarized on the Terrain Effects Chart.

Jotun heroes (only) have a **Fetter Escape Rating** which is used in a special combat situation covered later in these rules.

SPECIAL TERMS

Other terms, relating to specific game functions and situations, are defined and discussed later in these rules.

[4.0] SEQUENCE OF PLAY

SETTING UP THE GAME

Players should punch out and sort the playing pieces by color and type, and decide who will play each side. The Aesir player places the Hemdall counter on hex 0101, and both players place each of their heroes' Endurance Level markers on the Endurance Level Track in the space containing the name of each hero. Play then begins and proceeds strictly in the order that is outlined in the Game-Turn Sequence.

GAME-TURN SEQUENCE

Jotun Player-Turn

Rainbow Bridge Phase. The Jotun player determines whether the Rainbow Bridge collapses.

Jotun Recovery Phase. The Jotun player determines which of his incapacitated counters recover; eligible Jotun heroes can regain lost Endurance Points.

Jotun Movement Phase.

- On-Map Hero Segment. All eligible Jotun heroes that begin the Phase on the map can move.
- On-Map Unit Segment. All eligible Jotun units that begin the Phase on the map can move; engaged Jotun units can attempt to disengage and, if successful, can move.
- Rainbow Bridge Segment. All Jotun counters on the Rainbow Bridge Track can move.

Jotun Combat Phase.

- Engaged Hero Combat Segment. All eligible Jotun heroes that are engaged can attack Aesir heroes.
- Unengaged Hero Combat Segment. Eligible Jotun heroes that began the Phase unengaged can attack Aesir counters.
- Unit Combat Segment. Eligible Jotun units can attack Aesir counters.

Aesir Player-Turn

Aesir Reinforcement Phase. The Aesir player determines which counters are available for entry onto the map.

Aesir Recovery Phase. The Aesir player determines which of his incapacitated counters recover; eligible Aesir heroes can regain lost Endurance Points.

Aesir Movement Phase.

- On-Map Hero Segment. All eligible Aesir heroes that began the Phase on the map can move.

- On-Map Unit Segment. All eligible Aesir units that began the Phase on the map can move; engaged Aesir units may attempt to disengage and, if successful, can move.

- Reinforcement Segment. All Aesir reinforcements, if any, can move.

Aesir Combat Phase.

- Engaged Hero Combat Segment. All eligible Aesir heroes that are engaged can attack Aesir heroes.
- Unengaged Hero Combat Segment. Eligible Aesir heroes that began the Phase unengaged can attack Aesir counters.
- Unit Combat Segment. Eligible Aesir units can attack Jotun counters.

[5.0] MOVEMENT

GENERAL RULE:

Each counter is imprinted with a Movement Point Allowance, which indicates how many Movement Points the counter may expend in one friendly Movement Phase. Most hexes on the map cost only one Movement Point to enter, but some counters must expend more than one Movement Point to enter certain types of terrain (see Terrain Effects Chart and Terrain Key on map).

The movement of counters is also affected by the presence of other counters on the map, as described in the following Cases.

PROCEDURE:

During the friendly Movement Phase, a player can move as many of his eligible counters as he wishes, moving each counter individually up to the limit of, but not exceeding (see 5.7A&B), its Movement Point Allowance. A counter need not expend its entire Allowance, but unexpended Movement Points cannot be accumulated from turn to turn, nor may they be transferred to other counters. Once a counter is moved and the owning player has removed his hand, that counter's movement is ended for the current Movement Phase.

CASES:

[5.1] The number of counters that can occupy the same hex at the end of a friendly Movement Phase is limited.

At the end of a friendly Movement Phase, a hex can be occupied by the following counters:

- 1 ground unit
- 1 Valkyrie unit
- An unlimited number of heroes

A ground unit and a Valkyrie unit can occupy the same hex, along with an unlimited number of heroes. **Important Note:** There is no limit to the number of friendly counters of any type that can move through a hex, as long as no hex violates the restrictions of this Case at the end of the Movement Phase.

The restrictions on enemy and friendly counters that can occupy the same hex are covered in the following Cases.

NB: THE COUNTERS DISCUSSED IN CASES 5.2 THROUGH 5.5 REFER ONLY TO COUNTERS THAT ARE NOT INCAPACITATED

[5.2] A ground unit must cease its movement immediately upon entering a hex adjacent to a hex containing an enemy ground unit.

No two ground units — enemy or friendly — may ever occupy the same hex at the end of a Movement Phase. At the instant that a ground unit is adjacent to an enemy ground unit, the two ground units are considered **engaged**.

[5.3] A Valkyrie unit must cease its movement immediately upon entering a hex occupied by a Jotun unit.

At the instant a Valkyrie unit enters a hex occupied by a Jotun unit, the two units are considered **engaged** (see 5.7C).

[5.4] A Jotun unit must cease its movement immediately upon entering a hex occupied by a Valkyrie unit.

At the instant a Jotun unit enters a hex occupied by a Valkyrie unit, the two units are considered **engaged** (see 5.7C).

[5.5] A hero must cease its movement immediately upon entering a hex occupied by an enemy hero.

At the instant a hero enters a hex occupied by an enemy hero, the two (or more) heroes in the hex are considered **engaged**.

[5.6] Heroes never interfere with the movement of units into or through a hex, and units never interfere with the movement of heroes through a hex.

A hero may always move into or through a hex occupied solely by a unit (enemy or friendly), and a unit may always move into or through a hex occupied solely by a hero (enemy or friendly).

[5.7] There are several exceptions to the general rules governing movement:

A. A warrior unit can move one hex (only) in a friendly Movement Phase to cross a river hexside directly into a forest hex (see Terrain Effects Chart), even though such a move would normally exceed the unit's Movement Point Allowance.

B. Any ground unit or hero (other than Odin) that begins a friendly Movement Phase on a road hex and moves only through road hexes in that Movement Phase can expend one extra Movement Point over and above its Allowance.

C. Jotun units and Valkyries never affect one another's movement in a forest hex.

[5.8] Terrain Effects Chart
(see map)

[6.0] ENGAGEMENT AND DISENGAGEMENT

GENERAL RULE:

A hero or unit that is engaged cannot move during the friendly Movement Phase. An engaged unit may attempt to disengage during the friendly Movement Phase and, if its attempt to disengage is successful, it may then move in that Phase. An engaged hero may attempt to disengage during the Engaged Hero Segment of either the Aesir or Jotun Combat Phase.

PROCEDURE:

Counters become engaged by moving into a hex adjacent to, or occupied by, an enemy counter, as described in Cases 5.2 through 5.5. Counters disengage (by moving to another hex) either as a result of combat (which may call for a counter to retreat or become incapacitated) or as a result on the Disengagement Table (which may allow a counter attempting disengagement to move to another hex).

CASES:

[6.1] Incapacitated counters never engage enemy counters.

Important Note: It is possible, under certain circumstances, for a friendly non-incapacitated hero to occupy the same hex as an enemy incapacitated hero (this situation may also exist between units, but it is less likely). In such a case, the incapacitated hero would be engaged, whereas the non-incapacitated hero would not be engaged.

[6.2] A unit may attempt to disengage during the friendly Movement Phase.

An engaged unit may attempt to disengage during the friendly Movement Phase (only) by following the procedure outlined in Case 6.4. An engaged unit that successfully disengages may move during the current friendly Movement Phase.

[6.3] A hero may attempt to disengage during the Engaged Hero Segment of any Combat Phase, enemy or friendly.

An engaged hero may attempt to disengage during an Engaged Hero Segment (only) by following the procedure outlined in Case 6.4. **Important Note:** An engaged hero that successfully disengages during the Engaged Hero Segment of a friendly Combat Phase cannot participate in combat in the immediately ensuing Unengaged Hero Combat Segment.

[6.4] Disengagement attempts are resolved by comparing the Movement Point Allowance of the engaged counters, rolling a die, and consulting the Disengagement Table.

To determine whether a friendly counter's attempt to disengage is successful, subtract the Movement Point Allowance of the engaged enemy counter from the Movement Point Allowance of the friendly counter attempting to disengage (if more than one enemy counter is engaged, use the greatest Movement Point Allowance among them). Find the column corresponding to the difference on the Disengagement Table (see 6.6), roll one die, and cross-index the die roll with the appropriate column to determine the result. A hero that successfully disengages is immediately moved one hex into a hex that does *not* re-engage the hero with any enemy hero. If no such hex is available, the disengagement may not be attempted. If a disengagement attempt is unsuccessful, the counter attempting to disengage remains engaged and may not move.

Example of Disengagement:

Thor is engaged with Surt, Fenrir, and Hrym (they all occupy the same hex, and none is incapacitated) at the beginning of the Engaged Hero Combat Segment of a Combat Phase. Thor's Movement Point Allowance is 4. Fenrir has the highest Movement Point Allowance of the engaged Jotun heroes with an Allowance of 4. Subtracting Fenrir's Movement Point Allowance from Thor's yields a difference of 0. The Aesir player rolls one die and consults the 0 column on the Disengagement Table, and he rolls a 1. The intersection of the 0 column and the 1 row yields a result of 0, which indicates a successful disengagement. Thor is immediately removed to an adjacent hex free of non-incapacitated enemy heroes.

[6.5] An engaged counter may become disengaged as a result of combat.

A retreat result during a Unit Combat Segment may automatically disengage units by requiring one of the engaged units to retreat one or two hexes. A combat result that incapacitates an engaged unit or hero can automatically disengage an opposing engaged counter.

[6.6] There is one exception to the general rules governing engagement and disengagement:

A. When a friendly ground unit is attempting to disengage from an enemy ground unit that is across a river hexside, the disengagement attempt is resolved one column to the right on the Disengagement Table (for instance, on the +2 or more column rather than the +1 column).

[6.7] Disengagement Table (see map)

[7.0] INCAPACITATION AND RECOVERY

GENERAL RULE:

An **incapacitated** counter cannot move, cannot engage, and cannot attack (note, however, that incapacitated counters can be engaged and attacked by non-incapacitated enemy counters). In order to regain its full functions, an incapacitated counter must **recover** from its incapacitation.

PROCEDURE:

Jotun units can be incapacitated by blinding light cast by Heimdall or Freyr. Jotun heroes can be incapacitated by blinding light or by fetters cast by Odin. Jotun and Aesir heroes can be incapacitated by a loss of Endurance Points leading to unconsciousness.

Counters recover from incapacitation in various ways and at different times, according to the type of counter and the means of incapacitation, as described in Cases 7.1 through 7.4.

CASES

[7.1] Jotun units can be incapacitated by blinding light cast by Heimdall or Freyr.

Heimdall and Freyr both have the special ability to cast blinding light at Jotun units (or heroes) as described in Case 10.3. A Jotun unit incapacitated by blinding light has the Incapacitated Unit marker placed on it. A Jotun unit that is incapacitated by blinding light automatically recovers during the next Jotun Recovery Phase, and the Incapacitated Unit marker is removed.

[7.2] Jotun heroes can be incapacitated by blinding light cast by Heimdall or Freyr.

Heimdall and Freyr both have the special ability to cast blinding light at Jotun heroes (or units) as described in Case 10.3. A Jotun hero incapacitated by blinding light is inverted to show the back side of the playing piece. An engaged Jotun hero that is incapacitated by blinding light may attempt to recover during an Engaged Hero Combat Segment by rolling a die; on a die roll of 1 or 2, the hero recovers, and on a die roll of 3 through 6, the hero remains incapacitated. A Jotun hero incapacitated by blinding light automatically recovers during the next Jotun Recovery Phase. Whenever an incapacitated Jotun hero recovers, it is re-inverted to show the front side of the playing piece.

[7.3] Jotun heroes can be incapacitated by fetters cast by Odin.

Odin has the special ability to cast fetters at Jotun heroes as described in Case 10.1. A Jotun hero incapacitated by fetters is inverted to show the back side of the playing piece. An engaged Jotun hero that is incapacitated by fetters may attempt to recover during an Engaged Hero Combat Segment by rolling a die and comparing the die roll with the Fetter Escape Rating imprinted on the hero's playing piece; on a die roll greater than or equal to the Rating, the hero is immediately unfettered and recovers from incapacitation, and on a die roll one less than the Rating, the hero remains incapacitated. A Jotun hero incapacitated by fetters may also attempt to recover, following the same procedure, during a Jotun Recovery Phase. Whenever a Jotun hero recovers, it is re-inverted to show the front side of the playing piece.

[7.4] Jotun and Aesir heroes can be incapacitated by a loss of Endurance Points leading to unconsciousness.

Any hero who, due to a loss of Endurance Points for any reason, has only one Endurance Point remaining, falls immediately unconscious

and is incapacitated. A hero incapacitated by unconsciousness can recover only by recovering one or more Endurance Points (see Case 9.1).

[7.5] Jotun heroes may be incapacitated two ways at one time.

A Jotun hero incapacitated in two ways can recover from only one type of incapacitation during a given Jotun Recovery Phase or Engaged Hero Combat Segment. If a hero is incapacitated by both unconsciousness and Odin's fetters, he must recover from the unconsciousness first. A hero incapacitated by blinding light who becomes unconscious recovers immediately from the blinding light incapacitation. An unconscious Jotun hero is not affected by blinding light. A Jotun hero incapacitated by fetters and blinding light may recover from either manner of incapacitation first.

[8.0] COMBAT

GENERAL RULE:

During the Engaged Hero Combat Segment of each Combat Phase, eligible **engaged friendly** and **enemy** heroes can attack eligible enemy heroes. During the Unengaged Hero Combat Segment of a friendly Combat Phase, eligible **unengaged friendly** heroes can attack eligible enemy counters. During the Unit Combat Segment of a friendly Combat Phase, eligible **friendly units** can attack eligible enemy counters.

PROCEDURE

Combat is resolved by adding the Attack Rating of the attacking counter to the Defense Rating of the defending counter, and then rolling three dice. If the total of the three dice rolled is **less than or equal to** the sum of the Attack and Defense Ratings, a damage result must be determined; if the sum of the dice rolled is **more than** the sum of the Attack and Defense Ratings, there is no effect, and both counters remain in place without losses. When a damage result is called for, the players refer to the Damage Table and roll two dice. The result of this dice roll is cross-indexed with the type of counter that is **defending** (either hero or hero), and the damage result is applied immediately.

Important Note: There are a number of circumstances in which Attack Ratings may be modified during combat. These situations are examined in the following Cases.

CASES

[8.1] During the friendly Combat Phase, friendly counters must meet certain requirements in order to be eligible to attack:

ALL COUNTERS

...must not be incapacitated.

ALL HEROES

...to attack an enemy **hero**, must occupy the same hex as that enemy hero; combat takes place during the Engaged Hero Combat Segment (see 10.0).

...to attack an enemy **unit**, must occupy the same hex as that enemy unit; combat takes place during the Unengaged Hero Combat Segment (see 10.0)

ALL GROUND UNITS

...to attack an enemy **ground unit**, must occupy a hex adjacent to the enemy ground unit; combat takes place during the Unit Combat Segment.

...to attack an enemy **hero**, must occupy the same hex as the enemy hero; combat takes place during the Unit Combat Segment.

VALKYRIE UNITS

...to attack any enemy **counter**, must occupy the same hex as the enemy counter; combat takes place during the Unit Combat Segment.

JOTUN UNITS

...to attack a Valkyrie unit, must occupy the same hex as the Valkyrie unit; combat takes place during the Unit Combat Segment.

Important Note: A unit can attack only once per Game-Turn, but it can be attacked more than once per Game-Turn.

[8.2] During the Engaged Hero Combat Segment of each Combat Phase, **eligible engaged enemy heroes can be attacked by eligible friendly heroes.**

Combat during the Engaged Hero Combat Segment can take place **only** among engaged heroes occupying the same hex (note that **only one** of the heroes in the hex need be engaged — the other could be incapacitated). Each Engaged Hero Combat Segment is played in **three Rounds**, and all three Rounds are completed in one hex before Rounds are begun in another hex. **Note:** When a number of heroes are engaged in a hex, players can remove the heroes, marking the hex with the Melee Location marker, to simplify keeping track of the various heroes' numerous actions.

Example:

Thor and Tyr (both Aesir) and Loki (Jotun) occupy hex 1012 during the Engaged Hero Combat Segment of the Aesir Combat Phase (no other counters occupy the hex). At the same time, Freyr and Vidar (both Aesir) and Fenrir and Hrym (both Jotun) occupy hex 1411 (no other counters occupy the hex).

During each of the three Rounds in each hex, the Phasing player must perform an action with **each** of his heroes in the hex. There are three possible actions: (1) attack an enemy hero in the hex; (2) attempt to disengage; (3) attempt to recover from incapacitation.

Example (continued):

Since it is the Aesir Combat Phase, the Aesir player begins the first Round, choosing to resolve the action in hex 1012 first. In the Aesir half of the first Round, Thor attacks Loki (the attack is resolved and has no effect), and Tyr attempts to disengage (he is successful and immediately moves to hex 1013). In the Jotun half of the first Round, Loki attacks Thor (the result is a loss of 1 Endurance Point for Thor). The first Round is completed, and the Aesir player begins the second Round. Thor attacks Loki (the result is a loss of 3 Endurance Points for Loki; note that Tyr no longer participates in this Segment, because he has disengaged). The loss of 3 Endurance Points reduces Loki's Endurance Point level to 1, and he immediately falls unconscious and is incapacitated. Loki can do nothing in the Jotun half of the second Round (heroes cannot recover lost Endurance Points while engaged, see Case 9.1). The Jotun player therefore forfeits his action in the second Round, and the Aesir player begins the third Round: Thor attacks Loki (the result is a loss of 2 Endurance Points for Loki, reducing his Endurance Point level to less than zero, thus eliminating him from the game). Note that, in the third Round of this example, Thor is no longer engaged, because he does not occupy the same hex as a non-incapacitated enemy hero. Loki, from the instant he becomes incapacitated, remains engaged, however. After all three Rounds in hex 1012 are completed, the Rounds in hex 1411 are begun. In this hex, Hrym is already incapacitated by fetters. The Aesir player begins the first Round: Freyr attacks Fenrir (the result is a loss of 1 Endurance Point for Fenrir) and then Vidar attacks Fenrir (with no effect). In the Jotun half of the first Round, Hrym attempts to recover from incapacitation and succeeds, and Fenrir attempts to disengage (he is successful and immediately moves to hex 1412). The Aesir player begins the second Round: Freyr attacks Hrym (with no effect) and

Vidar attacks Hrym (the result is a loss of 3 Endurance Points for Hrym, which reduces his Endurance Point level to zero, eliminating him).

Once all the heroes on one side in a hex are eliminated, the Engaged Hero Combat Segment immediately ends, even if three Rounds have not been completed.

Example (continued):

The Engaged Hero Combat Segment is over for the Combat Phase in the example, even though another Round remains unplayed, because all heroes of one side in the hex are eliminated.

[8.3] During the Unengaged Hero Combat Segment of a friendly Combat Phase, **eligible unengaged friendly heroes can attack eligible enemy counters.**

In order to attack during this Segment, a friendly hero must not be engaged, and he must not have been engaged at any time during the immediately preceding Engaged Hero Combat Segment (for example, Freyr in the example in the preceding Case could not participate in the ensuing Unengaged Hero Combat Segment because he was engaged at the beginning of the Engaged Hero Combat Segment). A friendly hero complying with this restriction may attack any enemy counter occupying the same hex. **Important Note:** Combat during the Unengaged Hero Combat Segment does not take place in Rounds; an eligible friendly hero can attack one enemy counter once only, and cannot use the Segment to recover from incapacitation rather than attack.

[8.4] During the Unit Combat Segment of a friendly Combat Phase, **eligible friendly units can attack eligible enemy counters.**

During a friendly Unit Combat Segment, a friendly unit may attack one eligible enemy counter. **Important Note:** Combat during the Unit Combat Segment does not take place in Rounds.

[8.4] Under certain circumstances, a counter is obligated to attack an enemy counter.

Attacking is voluntary in most instances. However, in the following circumstances, a counter must attack:

A. A ground unit (whether it is engaged or not) that occupies a hex adjacent to an enemy ground unit, or occupies the same hex as an enemy unit or hero, at the beginning of a friendly Unit Combat Segment must attack one eligible counter of the friendly player's choice.

B. A Valkyrie unit (whether it is engaged or not) that occupies the same hex as an enemy counter at the beginning of a friendly Unit Combat Segment must attack one eligible counter of the friendly player's choice.

[8.5] There are certain instances in which an attacker's Attack Rating may be modified prior to resolving combat.

These modifications, described below, are summarized on the Attack Rating Modification Summary, Terrain Effects Chart, and the Mortal Enemy Combat Modification Summary.

Terrain. Forest hexes and river, bridge, wall, and gate hexes reduce an attacker's Attack Rating as indicated on the Terrain Effects Chart.

Mortal Enemies. Certain heroes are mortal enemies of other heroes and, as such, are especially likely to do harm to one another in combat. A hero's Attack Rating is increased when attacking a mortal enemy. Mortal enemies and the increases to which they are entitled are summarized on the Mortal Enemy Modification Summary.

Hero Modifications to Unit Combat. When a friendly unit, occupying the same hex as a friendly hero, attacks an enemy unit, the friendly unit's Attack Rating is *increased* by one. When a friendly unit, occupying the same hex as a friendly hero, is attacked by an enemy unit, the enemy unit's Attack Rating is *decreased* by one.

Grievous Injury. When a hero that has suffered a grievous injury is attacked by an enemy counter, the enemy counter's Attack Rating is *increased* by one.

Incapacitation. When an incapacitated unit is attacked by an enemy counter, the enemy counter's Attack Rating is *increased* by one.

Surrounded. When a surrounded unit is attacked by an enemy counter, the enemy counter's Attack Rating is *increased* by one. A unit is surrounded when there is no adjacent hex to which it could legally move without becoming engaged.

[8.6] Damage Table

(see map)

[8.7] Attack Rating Modifications

Summary (see map)

[8.8] Mortal Enemy Combat

Modifications Summary (see map)

[9.0] COMBAT RESULTS

GENERAL RULE:

Results on the Damage Table can reduce the strength of defending units, reduce the Endurance Point level of defending heroes, cause defending units to retreat, incapacitate defending counters or eliminate them entirely.

PROCEDURE:

Damage Table results, as described in the following Cases, are always applied immediately, before combat is resolved among any other opposing counters.

CASES:

[9.1] Heroes absorb combat damage by losing Endurance Points.

Each hero begins the game with an allotment of **Endurance Points** specified on the Endurance Point Track. Whenever a hero draws a damage result (or uses a special ability that expends Endurance Points, see 10.0), he will lose a number of Endurance Points specified on the Damage Table. Whenever a hero loses Endurance Points, his Endurance Point marker is moved along the Endurance Point Track to reflect his new level.

An *unengaged* hero can regain lost Endurance Points at the rate of one per Game-Turn by neither moving nor participating in combat (as attacker or defender) for an entire Game-Turn; a regained Endurance Point is added to the hero's Endurance Point level during the friendly Recovery Phase of the following Game-Turn by moving his Endurance Point marker on the Endurance Point Track to reflect the change in level. Note that a hero's Endurance Point level may never exceed his original allotment.

When a hero has only one Endurance Point remaining, he immediately falls unconscious and is incapacitated. A hero incapacitated by unconsciousness can recover from incapacitation only by raising his Endurance Point level above one in a friendly Recovery Phase.

When a hero's Endurance Point level reaches zero, the hero is dead, and his playing piece is immediately and permanently removed from the map.

[9.2] Heroes can sustain grievous injuries.

A hero sustaining a grievous injury on the Damage Table loses two Endurance Points at the

end of each *friendly* Unengaged Hero Combat Segment following the Game-Turn in which the injury is sustained. These two-point losses continue until the hero is dead, and are in *addition* to any normal Endurance Point losses.

To indicate that a hero has suffered a grievous injury, his Endurance Point marker is inverted to show the back side. A hero with a grievous injury has his Attack Rating reduced by one whenever he attacks, and when defending, his attacker's Attack Rating is increased by one. Note that a hero can suffer a grievous injury only once, and he may regain an Endurance Point during the Recovery Phase in the normal manner.

[9.3] Units absorb combat damage by losing Steps.

Each unit begins the game with two Steps of strength, the greater being represented on the front of the unit's playing piece and the reduced strength on the back. When a full-strength unit loses a Step on the Damage Table, the playing piece is inverted to show the back side. When a reduced-strength unit loses a Step, it is eliminated and is immediately and permanently removed from the map.

[9.4] Units may be forced to retreat as a result of combat.

A ground unit that is forced to retreat may *not* retreat through a hex so that it becomes engaged with an enemy unit, even if that hex is occupied by a friendly unit. In addition, a ground unit may not retreat into or through a hex occupied by a friendly ground unit. An Aesir ground unit may retreat into a hex containing a Valkyrie unit and no other ground unit; a ground unit may also retreat into a hex containing enemy or friendly heroes. A retreating unit that cannot retreat the total number of hexes required because it would become engaged or because of the presence of friendly units must lose a number of Steps equal to the number of hexes the unit cannot retreat. **Example:** A full-strength unit required to retreat two hexes, which can retreat only one hex, retreats that hex and immediately loses one Step.

Valkyrie units may not retreat into or through a hex occupied by a non-incapacitated Jotun unit. Valkyrie units may retreat into or through hexes containing friendly ground units, provided there are no Valkyrie units in those hexes.

Units that are forced to retreat off the map are considered eliminated.

[9.5] When a defending unit retreats as a result of combat, the attacking unit or hero may advance.

Only the attacking unit or hero may advance. If the attacker is a Valkyrie unit or a hero, it may advance into the hex into which the defender retreats or may stop in a hex along the path of retreat. If the attacker is a ground unit, it may advance into any hex along the path of retreat, but may not enter the hex of the retreated unit unless the retreated unit is a Valkyrie unit. An advancing ground unit may ignore hexes in which it would normally become engaged while advancing. A Jotun ground unit in the same hex as a Valkyrie unit may advance out of the hex if the Jotun unit attacks an Aesir ground unit successfully. A Jotun ground unit must cease advancing whenever it enters a hex occupied by a Valkyrie unit. If a ground unit eliminates an enemy ground unit, then it may advance into the hex that contained the eliminated unit. A unit may retreat in any direction the owning player desires, in keeping with the preceding restrictions.

[9.6] An advancing hero must halt and becomes engaged upon entering a hex containing one or more non-incapacitated enemy heroes.

[9.7] If all heroes on a side are killed, then the units on that side become demoralized immediately.

As a result of demoralization, an result of 1 or 2 (ordinarily calling only for a retreat) on the Damage Table obtained by a hero against an enemy demoralized unit is treated as a 1(-1) result (calling for a Step loss and retreat; see Damage Table).

[9.8] Endurance Record Track (see map)

[10.0] SPECIAL ABILITIES

GENERAL RULE:

Several heroes have one or more special abilities. Special abilities involve either movement or combat. Odin is the only hero with a special ability involving movement, which may be used only during the Aesir Movement Phase. An engaged hero may only use a special ability involving combat against a hero with which he is engaged. Exceptions to this rule are Odin and Tyr, who may produce Berserks even if they are engaged (but not if they are incapacitated). An unengaged hero with the ability to attack a unit or hero in another hex may attack a target in another hex only during a friendly Unengaged Hero Combat Segment. An attack with a special ability is in lieu of a normal attack. The special equipment used by a hero cannot be used by any other hero and is considered destroyed if the owning hero is eliminated. For a summary of special abilities, see page 23.

CASES:

[10.1] Odin

1. Odin has the ability to travel through the air on his eight-legged horse, Sleipnir. Odin may ignore all terrain during movement and moves at a rate of five hexes per turn.

2. Odin possesses a spear, Gungnir, which has enormous striking power. He may use this spear once during the game to attack another hero who is five or fewer hexes away. The spear has an Attack Rating of 12. When Gungnir hits a hero, the hero loses twice the number of Endurance Points indicated by the Damage Table.

3. Odin has the ability to incapacitate enemy heroes with fetters. During the Aesir Combat Phase, Odin may attempt to place a fetter on an enemy hero five or fewer hexes away. To determine whether or not a fetter has been placed successfully, the Aesir player counts the number of hexes to the target and rolls one die. If the die roll is greater than the range in hexes, then the fetter has been placed successfully. Odin may not attempt to place fetters on heroes in his own hex or on engaged heroes. A hero caught in a fetter is inverted to show his incapacitated side. Fetters may be placed on incapacitated heroes, but the Attack Rating of units and heroes attacking such a hero is not increased twice. Odin has an unlimited supply of fetters.

4. Odin has the ability to make all warriors units within one hex of himself become Berserks. At the beginning of the Aesir Movement Phase of each Player-Turn, the Aesir player examines Odin's hex and the six hexes immediately adjacent to him. Any warrior units in these hexes immediately become Berserks and are replaced by Berserk counters. As shown on the Berserk playing piece, a Berserk is a more efficient fighting unit than a normal warrior unit. All Berserk warrior units revert to normal status in the Aesir Recovery Phase of the Game-Turn after which they become Berserks. The creation of Berserks during a Movement Phase does not prevent Odin from attacking dur-

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ing a Combat Phase. The same applies to Tyr (see 10.5). Odin and Tyr cannot create Berserks if they are incapacitated. Warrior units replaced temporarily by Berserks must keep separate from un-entered warrior units. If a full-strength Berserk loses a Step in combat and then reverts to normal status, it is replaced with a half-strength warrior unit.

[9.2] Thor

1. Thor's hammer, Mjollnir, returns to his hand after striking an opponent. Thor may use his hammer to attack other heroes two or fewer hexes away using the Attack Rating imprinted on his playing piece. Thor may attack an enemy unit with his hammer only if it lies in his hex. Thor may not throw his hammer at engaged heroes in another hex. If Thor hits a hero in another hex with his hammer, then the hero loses twice the number of Endurance Points indicated on the Damage Table. The hammer does normal damage to a hero in the same hex as Thor.

2. Thor has the ability to throw thunderbolts at enemy counters. A thunderbolt has an Attack Rating of 12. The range of a thunderbolt is unlimited, but Thor must expend one Endurance Point for every two hexes between him and the target of a thunderbolt, rounding fractions up if the target is an odd number of hexes away. Thor must expend one Endurance Point to attack an enemy counter in his own hex with a thunderbolt. Thor may throw a thunderbolt even if the resulting loss of Endurance Points causes him to lose consciousness or die. All counters in the same hex as the target of a thunderbolt also are attacked by the thunderbolt, with an Attacking Rating of 6, except for Thor himself.

3. During battle, there is a chance that Thor will lose the girdle of strength he wears. Whenever Thor receives a -4g damage result, the Aesir player rolls one die. If the roll is a 5 or 6, then Thor has lost his girdle of strength. If Thor loses his girdle of strength, then his Attack Rating is reduced by one and his Defense Rating is increased by one for the rest of the game. The girdle of strength may never be recovered once it is lost.

4. Thor is very proficient at killing Frost Giants. Whenever Thor attacks a Frost Giant unit with his hammer, his Attack Rating is increased by one.

[10.3] Heimdal

Heimdal has the ability to cast blinding light at enemy counters in his own hex. During the Aesir Unengaged Hero Combat Segment or during a Round of an Engaged Hero Combat Segment, Heimdal may cast blinding light at one target in his hex. To determine the effects of blinding light, the Aesir player rolls two dice and consults the Damage Table under the appropriate column. The result obtained on the Damage Table is applied immediately. Heimdal must expend one Endurance Point each time he uses blinding light.

[10.4] Freyr

Freyr has the ability to cast blinding light. The effects and limitations of this special ability are identical to those for Heimdal (10.3).

[10.5] Tyr

Tyr, like Odin, has the ability to cause warrior units to become Berserks, though to a lesser extent. Berserks produced by Tyr are the same as those produced by Odin, but Tyr can only make a Berserk out of a warrior unit in his own hex at the beginning of the Aesir Movement Phase.

[10.6] The Midgard Serpent

The Midgard Serpent has the ability to infect his victims with a deadly poison. Whenever the

Midgard Serpent attacks a hero and inflicts a loss of Endurance Points, the Jotun player rolls two dice. If the sum of the dice results is less than or equal to five, then the target hero has been infected by the poison and suffers a grievous injury. A hero with a grievous injury may not be poisoned by the Midgard Serpent.

[10.7] Fenrir

Fenrir may increase his Attack Rating by two for the duration of one Combat Round by making a lunging attack. The Jotun player must announce a lunging attack before combat is resolved in that Round. In the Aesir half of a Round after the Jotun half of a Round in which Fenrir executes a lunging attack, Fenrir's Defense Rating is increased by two. This defense penalty does not carry over between Combat Phases. A lunging attack may be made only against an Aesir hero in Fenrir's hex. If Fenrir makes a lunging attack and inflicts a grievous injury, then there is a chance that he has swallowed the defending Aesir hero. The Jotun player rolls one die. If the result is a 1, 2, or 3, then the defending Aesir hero has been swallowed and is removed from play immediately. Otherwise, a normal grievous injury is inflicted. Vidar can never be swallowed by Fenrir.



[10.8] Garm

Garm, a hellhound, may execute a fire-breath attack against one Aesir counter in his hex. Garm's fire-breath has an Attack Rating of 10. Garm must expend one Endurance Point to make a fire-breath attack. Garm may make a fire-breath attack against a gate hexside adjacent to the hex he occupies. Garm may make a fire-breath attack even if the resulting loss of Endurance Point causes him to lose consciousness. Garm's fire-breath is ineffective against wall hexsides.

[10.9] Surt

Surt has the ability to fling bolts of fire. Instead of a normal attack, Surt may make a fire bolt attack on a counter three or fewer hexes away from his hex. Fire bolts have an Attack Rating of 11. Surt must expend one Endurance Point for every hex of range between him and the target hex of a fire bolt and one Endurance Point to attack a target in his own hex. Surt may fling a bolt of fire even if the resulting loss of Endurance Points would cause him to lose consciousness or die.

Surt may use his fire bolts against gate hexsides. To determine the range from Surt to a gate hexside, count the number of hexes from Surt to a hex adjacent to the gate hexside. This figure increased by one is the range. The range between Surt and an adjacent hexside is one hex. Surt's fire bolts are ineffective against wall hexsides.

[11.0] THE RAINBOW BRIDGE

GENERAL RULE:

Jotun counters enter the map via the Rainbow Bridge, which is represented by a track on the map. The number of counters that the Jotun player may place on the Rainbow Bridge Track at any one time is unlimited. The more Jotun counters on the Rainbow Bridge, however, the greater the chance the bridge will collapse.

PROCEDURE:

After all Jotun counters on the map have moved in a Jotun Movement Phase, Jotun counters in the third box of the Rainbow Bridge Track (RBT) may be placed on the Rainbow Bridge Terminus Hex (0101). A counter expends one Movement Point to enter hex 0101. Jotun

counters may move normally on the map in the Movement Phase in which they enter hex 0101. Then, counters in the first and second boxes of the RBT can be advanced into the second and third boxes, respectively. Finally, the Jotun player can place available counters in the first box of the RBT as reinforcements. Counters cannot move into a lower numbered box (for instance, from the second to the first). The Jotun player may advance all, some, or none of his available counters along the RBT.

CASES:

[11.1] If hex 0101 contains no non-incapacitated Jotun counters, and if this hex is occupied by an Aesir unit or non-incapacitated Aesir hero, Jotun counters on the RBT may move freely onto the map only as specified below.

An Aesir counter in hex 0101 may be attacked normally by Jotun counters already on the map, or by Jotun counters in the third box of the RBT. If the Jotun player attacks from the RBT, he may move one unit and an unlimited number of heroes into 0101 from the third box of the RBT during a Jotun Movement Phase. If the Aesir counter is not removed from 0101 by the end of the ensuing Jotun Combat Phase, then any Jotun unit that was moved into 0101 from the RBT in the immediately preceding Jotun Movement Phase is eliminated. No Jotun counter moved into 0101 from the RBT may leave 0101 until it is completely free of non-incapacitated Aesir counters. Jotun counters can continue to advance along the RBT even if hex 0101 is obstructed by an Aesir counter.

[11.2] No counter can ever move or retreat from the map to the RBT.

[11.3] During the Rainbow Bridge Check Phase of each Game-Turn, the Jotun player determines whether or not the Rainbow Bridge collapses.

During the Rainbow Bridge Check Phase, the Jotun player determines the greatest number of Jotun units in any one box of the RBT and finds the corresponding column on the Rainbow Bridge Collapse Table (11.7). The Jotun player rolls two dice and finds the result by cross-indexing the dice roll with the proper column.

If the result is a 1, all counters in the first and second boxes of the RBT are eliminated and removed from the Track. The bridge collapses at the end of the Jotun Movement Phase of the next Game-Turn. If any counters in the third box are not entered the map before the collapse, they are eliminated.

If a result of 2 is obtained, all counters in the first box of the RBT are eliminated and removed from the Track. The bridge collapses at the end of the Jotun Movement Phase in two Game-Turns. Any counters still on the Track when the bridge collapses are eliminated.

If a result of 3 is obtained, the Rainbow Bridge collapses immediately, and all counters on it are eliminated and removed from the RBT.

Once the Rainbow Bridge has collapsed, no more Jotun counters can enter the map. Once it is determined when the Rainbow Bridge will collapse, the Rainbow Bridge Check Phase is omitted in subsequent Game-Turns.

[11.4] When counting the number of units in a box of the RBT, all heroes except the Midgard Serpent (which counts as a unit) are ignored.

[11.5] Combat may not take place on the RBT.

Heroes with an ability to attack into another hex may not attack Jotun counters on the RBT.

[11.6] Heimdall can never leave hex 0101.

[11.7] Rainbow Bridge Collapse Table (see map)

[11.8] Rainbow Bridge Track (see map)

[12.0] ASGARD

GENERAL RULE:

Before Jotun counters can enter Asgard, the walls surrounding it must be breached or one of the gates penetrated.

PROCEDURE:

Wall hexsides have an intrinsic Defense Rating of zero, and gate hexsides have an intrinsic Defense Rating of one. Add the Defense Rating of a wall or gate hexside being attacked to the Attack Rating of the attacking counter, and roll for a hit using the combat resolution procedure. If a result is obtained, roll for damage on the hero combat column of the Damage Table. If a loss of two or more Endurance Points is inflicted, the wall or gate hexside being attacked is destroyed. On any other result, nothing happens to the wall or gate hexside being attacked. Endurance Point losses inflicted on wall or gate hexsides are not cumulative.

CASES:

[12.1] Only Valkyrie units and Odin can move through an intact wall hexside.

Only Asir counters can cross an intact gate hexside.

[12.2] Ground units and all heroes except Odin must expend one additional Movement Point when crossing a destroyed wall or gate hexside (to reflect the effects of rubble).

[12.3] A unit or hero (without ranged special abilities) must be adjacent to a wall or gate hexside in order to attempt to destroy it.

Counters must attack wall and gate hexsides individually. Engaged counters cannot attack wall or gate hexsides. Special abilities involving fire may not be used against wall hexsides, but they may be used against gate hexsides. Players must keep a record on a separate sheet of paper of which wall and gate hexsides have been destroyed.

[12.4] The Attack Rating of a ground unit attacking another ground unit through a destroyed wall or gate hexside is reduced by one.

[12.5] Combat can never occur across intact wall or gate hexsides.

Adjacent ground units are never engaged across an intact wall or gate hexside, but they can be engaged across a destroyed wall or gate hexside.

[12.6] A hero may never use a special ability involving attacking a counter in another hex if the target counter lies on the opposite side of a wall or gate hexside, whether the hexside is intact or destroyed.

[13.0] REINFORCEMENTS

GENERAL RULE:

During each Player-Turn, available reinforcements can enter the map. Reinforcements are moved onto the map by the friendly player after any

counters already on the map are moved in a Movement Phase.

PROCEDURE:

All Jotun counters must cross the Rainbow Bridge to enter the map. The Jotun player decides the rate at which these counters will cross the bridge, taking into account the risk of collapse. The Jotun player must place his counters onto the Rainbow Bridge Track in a certain order. Surt, Garm, the Midgard Serpent, and Fire Giants may not be placed onto the RBT until Loki, Fenrir, Hrym, and all Frost Giants have passed through the first box of the RBT.

Before the start of the game, the Asir player rolls one die and adds two to the result. This sum is the Game-Turn in which Asir reinforcements begin to enter the map. In the Reinforcement Phase of each Asir Player-Turn while there are still Asir counters to enter, the number of warrior units, Valkyrie units, and heroes to be entered is determined. To determine how many warrior units enter, the Asir player rolls one die and subtracts one from the result. The resulting figure is the number of warrior units that enter the map. To determine the number of reinforcing Valkyrie units, the Asir player rolls one die and subtracts two from the result. The resulting figure is the number of Valkyrie units that enter the map. To determine which heroes may enter the map, the Asir player rolls one die for each hero. If a 1 is rolled for a hero, that hero may enter the map. Odin is exempt from this entry process and enters automatically on the first Game-Turn in which Asir reinforcements enter. The Asir Reinforcement Phase is omitted once all Asir counters have entered the map. All Asir reinforcements enter the map along the east mapedge between hexes 0726 and 1526, inclusive. If a zero or negative number is obtained when determining the number of warrior or Valkyrie units that are reinforcements during an Asir Reinforcement Phase, there are no reinforcements of the type rolled for in that Player-Turn.

CASES:

[13.1] Jotun counters entering the map from the RBT and Asir ground units and heroes entering the map on road hexes may benefit from the road movement bonus on the Game-Turn in which they appear.

[13.2] All counters must expend one Movement Point to enter the map.

[14.0] VICTORY CONDITIONS

GENERAL RULE:

The first player to fulfill one of his Victory Conditions is the winner of the game. The Jotun player wins by exiting counters from the east mapedge within Asgard. The Asir player wins by repelling the Jotun Invasion successfully. The game ends immediately whenever one player has fulfilled one of his Victory Conditions, and he is declared the winner.

CASES:

[14.1] The Jotun player wins the game if he exits one hero (without a grievous injury) or one unit (full or reduced strength) from the east mapedge between 0726 and 1526, inclusive.

To exit a counter from the mapedge, the Jotun player must move the exiting counter into a hex adjacent to the mapedge and expend one Movement Point to leave the map. Once a counter leaves the map, it may never re-enter.

[14.2] A Jotun hero exited from the map before all Asir counters on the map have been destroyed does not fulfill the Jotun player's Victory Conditions.

[14.3] A Jotun unit exiting the map between 0726 and 1526 by retreating as a result of combat does not count as an exited unit for the purposes of Jotun Victory Conditions.

[14.4] The Asir player wins if he eliminates all Jotun counters that enter the map, regardless of his own losses.

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[10.0] SPECIAL ABILITIES

ASIR HEROES

Freyr • Can cast blinding light in the hex he occupies at a cost of one Endurance Point per blinding light attack.

Heimdall • Can cast blinding light in the hex he occupies at a cost of one Endurance Point per blinding light attack.

Odin • Rides Sleipnir and can ignore terrain during movement. • Can hurl Gungnir once per game. • Can throw fetters as far as five hexes. • Can form Berserks within one hex.

Thor • Can hurl Mjollnir at units within his own hex or at heroes within two hexes. • Can hurl thunderbolts at a cost of one Endurance Point for every two hexes hurled. • Wears girdle of strength. • Adds one to his Attack Rating against Frost Giant units.

Tyr • Can form Berserks in the hex he occupies.

Vidar No special abilities.

JOTUN HEROES

Fenrir • Can make lunging attacks

Garm • Can make fire-breath attacks in the hex he occupies at a cost of one Endurance Point per fire-breath attack.

Hrym No special abilities.

Loki No special abilities

Midgard Serpent • Can infect victims with deadly poison

Surt • Can fling bolts of fire as far as three hexes at a cost of one Endurance Point per bolt of fire attack.

Ragnarok Counter Section Nr.1 (100 pieces): Front

Quantity of sections of this identical type: 1. Total quantity of Sections (all types) in game: 1.

Ragnarok Counter Section Nr.1 (100 pieces): **Black**

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RAGNAROK RULES, PAGE 8

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NOTES

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An SF Game Sampler

Critiques of 8 Space Combat Game Systems

By Steve List

Were it not for the surge of interest in science fiction adventure games in the last few years, the magazine this article is in would not exist, nor possibly would most of the games being reviewed. All but one of the eight were published during 1979 or later, and many appear to have been brought out to jump on the bandwagon. The exception is Metagaming's *Warp War*, published in 1977. It was a part of a series, the MicroGames (quick, the copyright symbol!) which may well have helped get the bandwagon rolling in the first place.

Whatever the reasons for publishing games, these that will be examined have been selected as recent additions to the hobby and as a random sample of what kinds of goods are being offered. Fortuitously, it seems that between us the Managing Editor and I came up with two titles in each of four categories: Tactical space battle, Operational space battle, Strategic space battle, and "generational" exploration/exploitation. While these distinctions are a bit blurry, they serve to identify the main thrust and/or level of detail that is most prominent. *Star Fleet Battles* is tactical because it puts the player in the role of a ship's captain, while *Starfire* is operational because it is more concerned with the handling of fleets. *Starfall* could be considered strategic, but is classed as a generational game because the main activity is exploration and economic development. Warfare may be required to win, but is not the purpose of the game. The games themselves are presented in descending level of detail.

STARFALL Yaquinto, 1979

Design: J. Stephen Peek
28-page rulebook, 560 counters with set-up sheets, log sheets, charts and screens in box with tray. \$13.00.

Starfall is reminiscent of earlier games like *Stellar Conquest* in that the players in general are competing over the colonization of a stellar cluster and in doing so may choose to pursue or avoid armed conflict. The map is two-dimensional, but this abstraction does not detract from play. Scales are 3 light-years per hex and 10 years per turn.

The map is divided into a 6x6 array of quadrants, each subdivided into 6 areas which are comprised of 6 zones (individual hexes) so that each hex on the board can be specified by a four digit number. While apparently more cumbersome than the SPI system of numbering every hex, it is functional; all coordinate digits are in the range of 1 to 6, so any location on the board can be generated at random by the roll of four dice.

Movement on the board is either hex by hex or via an instantaneous transfer by means of a "Starfall Point." Each of these is focused into a given quadrant, determined at

random when the point is discovered; each trip through the Starfall ends in a different randomly selected location within the given quadrant. Starfall movement is very rapid, allowing for instant transit of the entire board, but there is no guarantee that a player will find a Starfall to take him where he wants to go. Each Starfall is, of course, a one-way road.

Spaceships are of two types and three classes. "Infinity" ships can move three hexes per turn and make Starfalls. They are classed as Exploration, Development and Military. "Pi" ships are cheaper and less effective, but can be built much more quickly. They move only two hexes per turn, but they cannot leave the quadrant in which they were built nor move by Starfall. Given these conditions, there are no Pi Explorers.

There are a variety of scenarios for 2 to 4 players, where each generally starts with a home system and a few colonies and known Starfall points, either in specified locations or determined at random. Victory in most cases depends on the total of developed systems or resource points obtained within a given time. This choice of goals allows the players to concentrate on either developing their own resources or using military action to retard the competition.

Resource points are the currency of the game and are used to purchase new ships and planetary defenses. They are obtained from colonized and developed systems, as well as from star clusters. Players begin the game with an uphill job of exploring to locate new systems, and then building the Development ships needed to improve the discoveries, while still being saddled with a limited economic base.

Exploration itself is tricky. The player must decide first if he is searching for a system or a Starfall point; in either case, the odds of locating one depend on the number and nearness of similar discoveries. Locating a Starfall provides quick entry to virgin territory, but leaves the Explorer literally out on a limb. Looking for systems has pitfalls, too, for even a "successful" search may yield only a star cluster, an ion storm or a hostile (non-player) fleet. (The storm stands a good chance of destroying a lone Explorer, and the hostiles will always do so). Once a system is discovered, its resource point value is determined, along with its "compatibility" and the presence, if any, of intelligent life. If alien races are discovered, their attitude toward star travelling colonists and their willingness and ability to fight for their world must also be determined.

To get maximum resource points from a system, it must be Developed. First, however, it must be colonized, which requires the elimination of any compatibility differences between the system and the colonists' home system. If there are hostile inhabitants, their system defenses must first be overcome.

All Infinity ships are capable of direct military action, but the other incompatibilities must be eliminated by the use of Development ships in a process that is deliberately analogous to combat. The Development ships "attack" the problem to be solved, reducing or eliminating it if successful. The problem, however, can also "counterattack" and possibly remove Development ships from play.

Development of a system is usually rather time consuming, counting both travel and the lead times for ship construction. It can also be very costly. The maximum resource point value for a system is 9, though less than a third of the systems discovered will ever be worth more than 4 points. A single Development-type Infinity ship costs 12 points to build, and several could be lost in the effort. Since a Pi Development-type ship costs only 3 points, once a system in a quadrant is developed, it can build these cheaper vessels to colonize nearby systems, assuming the player be lucky enough to discover any sufficiently close.

While it may appear that too much of the game depends on luck or dice rolling, this is not really so. The sheer amount of dice rolling tends to level out fluctuations from the mean, and over the course of a twenty turn game, the effects of good strategy are of greater importance. This effect also makes this a game well suited for solitaire play.

DARK STARS Simulations Canada, 1980

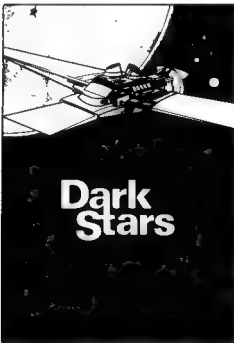
Design/Development: Stephen M. Newberg
16-page rulebook, 265 counters, 22" x 28" map, 9" x 12" ziploc bag. \$11.99.

Dark Stars is another multi-generational game of exploration and colonization. It is set in a globular cluster of "around 1500 stars" and is about 120 light-years in diameter. However, in terms of the game this is not true — only 70 stars are shown on the map (the other 1400-odd stars have no planets?). Since the map is only 32 by 34 hexes and 19 levels, at a scale of 2 light-years per hex, the playing space is only about a 65 light-year square 38 light-years deep, a far cry from a 120 light-year diameter globe. This discrepancy between what the designer apparently visualized and what he actually produced is symptomatic of the primary defect of the game, incomplete realization of its potential.

Native to this cluster are three races, the Riin, Gzrel and Tassar. Each can colonize only certain spectral-type stellar systems (18 of the 70 cannot be colonized by anyone though they are of certain economic value) and there is limited overlap (e.g., the Riin and Tassar have no spectral types in common). Not native to the cluster are Terrans, who can colonize at least some of the types usable by each of the other races.

The game is played on two levels, interstellar and interplanetary. Each turn on the Interstellar map represents 20 terrestrial years. Whenever a player ends a turn with ships in a stellar hex and he wishes to do anything in the star system it represents, the Interplanetary Display is set up and the action resolved. Up to 100 turns may occur on the Interplanetary Display before play must resume on the Interstellar map, but generally far fewer turns are required.

Movement on the Interstellar map is pre-plotted and simultaneously resolved, as is action within a star system if more than one player has ships present there. The Interplanetary Display consists of a central hex surrounded by nine concentric rings of hexes called "orbitals." The scale varies from orbital to orbital, those farther from the center being considered larger (i.e., the first orbital is 6 hexes long, the ninth is 54, or nine times as long counting hexes, in the Solar System, Pluto's orbit is a bit more than 100 times as long as that of Mercury, hence requiring a variable scale to fit the thing on the map). When a stellar system is first explored, the type of planet to occupy each orbital is determined by die roll and then recorded to ensure that the next player to explore the system finds the same things.



Dark Stars

Each native race has its own mode of travel, both interstellar and interplanetary, but while the details are different, they are similar. They all move hex by hex on the interstellar map, Terrans, in contrast, can jump instantaneously from star to star. They do this by locating a "black hole" in the last orbital of the system they are in and entering it. This transports the ship to a corresponding "white hole," the center of another star (the casual description of how spaceships can be built to survive in a star's interior is a bit flabbergasting). However, such jumps are one-way only, and the mechanics are made so the path never intersects itself — each black hole leads to a new star. The Terrans enter from off the map, and in time can reach

every star on the map (once), at which time they can only jump off the map, never to return.

Each race except the Terrans must choose one of three "racial goals" as its secret victory conditions. Terrans, being both paranoid and xenophobic, have only one goal: waste any aliens they encounter. All races, including the Terrans, must satisfy "checkpoint" conditions every 20 interstellar turns to avoid losing. The game can continue to as many checkpoints as the players decide. To structure this, four scenarios are supplied. One, "The Long Reach," sets up each native race with only its original home world, and is the campaign version. The other scenarios start the native races off with assorted colonies already in existence. Terrans always start the game, though, so their initial strength relative to other races varies. The racial goals also seem to have been drawn up with "The Long Reach" in mind; fulfilling them in some of the other scenarios is trivially easy. It appears as if the game was designed and tested using the campaign version, with the short scenarios simply being late-add-ons.

The economic and exploration systems underlying the societies in the game are too simplistic. While playable, they are unsatisfying and "unrealistic." The rules for interstellar movement are poorly done, with huge loopholes and unstated assumptions. Other rules are at best sketchy (and done with SimCan's notorious spelling), and the rulebook is a graphic headache, with full page width columns of small print and few "landmarks" to aid looking up half-remembered rules.

In summary, the game is only half-cooked. The essential idea behind it is good and parts of the design are very nice, but on the whole it is underdeveloped and not terribly well produced as a physical artifact. If you like to tinker with game designs, buy it, for you're sure to find lots of things to elaborate on. However, if you want a complete product, look elsewhere.

TIMELAG Gameshop, 1980

Design: Mike Vitale

4-page rules folder, 120 counters, 9" x 14" map, charts, bagged. \$3.95

This game had some promise — a strategic conflict in which relativistic effects would cause spaceships to age at different rates, leading to interesting problems of obsolescence vs. newness. Sadly, the promise is not kept. Furthermore, the game has so many defects that the failure to provide a good treatment of time dilation is only a minor disappointment.

The map shows 17 systems of 4 collapsars each, linked by jump route lines. Most collapsars are Yellow, but two are Black and on an average slightly less than one per system is Red. Ships can move hex by hex across the map, or attempt to make jumps. Jumps between collapsars in the same system are easiest, while from a Black to a Red is almost as easy. Jumping Red to Black is more difficult.

A ship will age 5 years for every hex it moves or jump it attempts. An "Out Of Tech" track is provided, and a counter for each ship is moved on the track to show how

old it is compared to some arbitrary standard. A ship that attempts no movement at all in a turn will have its marker moved backwards 5 years, to reflect incremental improvements made to it.

The system is flawed, though. Consider two ships built at the same time, which leave their base at the same time and spend 10 turns wandering around the map. One moves two hexes per turn and so ages 100 years; the other moves only one hex per turn and thus ages only 50 years. But at the end of ten turns when they return to the base, they will be equally old in terms of the base's frame of reference. If they were identical to start with, they will still be identical, no matter what the apparent elapsed time to the respective crews has been.

This flaw shows the basic problem with trying to plug relativistic effects into a game. Time dilation has the effect of making the passage of time slower to the people on the moving ship, and the faster they move the slower time will run. The method used in this game has a different effect — the faster a ship moves, the faster it ages as seen from some fixed reference. The result is to introduce an "age" factor that has no real validity, because the players will see time pass at a constant rate (i.e., one turn at a time); the subjective passage of time aboard the little cardboard squares pretending to be spaceships is irrelevant to the game.

Each player represents a society considered to be at a Tech Level of from 1 to 7. Increases in Tech Level can be gained from investing economic points or they can come about automatically. A marker on the Out Of Tech track is moved at the same rate as the oldest ship, and when it passes certain milestones the Tech Level is increased due to passage of time. This way a player can make time stand still, merely by not moving his oldest ship.

Increased Tech Level allows purchase of faster and more powerful ships that are less prone to scattering when jumping. But a player can only buy ships of his current Tech Level, which means that as older ships are lost in combat they cannot be replaced. The counter mix provides 6 ships at Tech Level 1, but the number per ship-type decreases so only 1 ship at Tech Level 7 is available. That ship is a monster, but it can only be in one place at a time.

The combat system is interesting. Each player moves all his ships, and then initiates combat as he wishes in hexes containing enemy ships. Each totals the product of Force Level and Tech Level of each ship he has; the difference between the aggregate strengths is then modified by the difference in average ages of the two forces, with the younger force getting the advantage. The final differential is cross-referenced with a die roll to get the results, usually a loss of 1 or 2 ships for one or both players.

Economic Points are gained by controlling collapsar systems. To have control, a player must control more of the collapsars (i.e., have more ships there) in the system than his opponent. This means that even uncontested systems must be garrisoned for the points to be counted. Given the limited number of ships available, this is a great drain on a fleet. Also, calculation of Economic Points occurs after the second

player turn in each game-turn, giving that player a strong advantage.

The graphics of the game are very weak, especially the map. It is a white hex grid superimposed on a positive print of the Crab Nebula. Like most star-filled photos, it shows a lot of white spots (if you look closely, the background is really black spots on a white field). This reproduction combined with the pale quality of the black on my copy (some copies may be better) give the map a charcoal grey look. In the midst of the Nebula, the white is so predominant that the hexes disappear. The hexes appear to be numbered SPI style, but the white numbers are illegible on the mottled background. The two Black collapsars stand out very well, but the Reds are so pale as to be hard to see, and the Yellows are almost invisible.

The counters are little better. The blue on white set is adequate, since the ship names are readable, if corny (Gordon, Rogers, Caesar, Napoleon — famous spacemen all), but the red on yellow set is not. For some reason, the designer printed these names in Greek. Fortunately for players who are not classical scholars, each ship has an ID number as well, in good of Arabic numerals. The rules are only four pages long, and surprisingly complete. The scope of the rules is small, however, so that while what's there is complete, there ain't much to it. Save your money.

WARP WAR Metagaming, 1977

Design: Howard Thompson

16-page rulebook, 56 strip-out counters, 8" x 14" map, packed in a 4" x 7" pouch. \$2.95.

Like many of the MicroGames, *Warp Wars* packs a goodly amount of interest into a small package. It is a strategic military game with a quasi-tactical combat resolution that used a diceless system. There is a minor effort to show elapsed time effects, but it merely boils down to old ships being not as good as new ones.

The map contains 28 star hexes, all of which are connected to at least one other one by a "warp line." Three stars at each end of the board are designated as bases, for production and victory purposes. There are two types of spaceships. Systems must remain in the base hex where they are built, unless they are carried by one of the other type — the Warships — which can move hex by hex across the map (at one movement point per hex) and from one star to another via warp line (also at a cost of one movement point). The Warships must stop moving when entering a star hex containing enemy ships. After the phasing player finishes all movement for his turn, he resolves combat in all hexes where both players have ships (checking victory conditions and building or repairing ships is done prior to movement).

Each ship is represented on the board by a counter with type and ID number only. All details are recorded on paper. A ship can be provided with a number of Power/Drive (PD) points — the PD value is also its movement allowance on the map — a beam weapon, an energy screen, one or more missile tubes with missiles, and in the case of Warships, a Warp Generator and one or more System-

ship racks. In addition, the Technological Level of the ship is recorded (a player's tech level starts at 0 and increases by 1 every 4th turn; a ship remains at whatever tech level was in effect when it was built).

The cost of building or repairing ship components is given in "Build Points." Three scenarios are given, differing in complexity. In the Learning and Basic scenarios, the players get all their Build Points at the start, with no further building or repairs allowed. The Advanced scenario gives the players a per turn allowance of Build Points and uses all the rules. All scenarios end when one player has achieved a set number of victory points (gained by occupying enemy bases) or when both have run out of ships.

Combat is a semi-tactical abstraction. Each player secretly writes down for each ship the following information: Combat tactic (attack, dodge or retreat), a target for beam fire, a target and Drive Setting for each missile launched, which Systemship (if any) it will pick up or launch, and its power allocation. Power is allocated to Drives for maneuver (the number of PD points allocated is the Drive Setting) and to beams and screens for combat (the number of PD points to each determines how strong the attack or defense is), and a point must be provided to each tube that fires a missile. The total points cannot exceed the ship's PD rating, or can beams or screens be powered beyond their base value.

Combat is resolved by cross-indexing on a matrix the tactic of the attacking ship (or missile) with its target, and determining the difference between the combatants' Drive Settings. The result will be escape (if the defender retreated), miss or hit. Beam hits score points equal to the power applied plus the Tech Level, missiles equal to 2 plus the Tech Level. After totalling all hit points scored on a ship, the powered Screen points plus the Tech Level is subtracted to determine the net damage. Each point destroys one attribute factor of the defending player's choice (e.g., if a ship that had PD 5 with 2 tubes and a 3 screen took three hits, it could lose all three screen factors, or one each from PD, tubes and screens, etc.). Warp Generators cannot be hit, but once a ship has lost all other attributes, it is destroyed.

The game system is clean and playable, but poorly suited for solitary play. An irritating simplification lies in the fact that Tech Level affects only the amount of damage done in combat. It has no bearing on ship movement or the ability to score a hit in the first place. Given the scope of a MicroGame, this is not a terrible omission, especially since the rules encourage players to make up their own where they want more complication. Given such official "approval," the game can be viewed as a starting point for whatever complexities the players can mutually agree upon.

STARFIRE Task Force Games, 1979

Design: Stephen V. Cole

24-page rulebook, 108 die-cut counters, 16" x 21" map, ziplock bag. \$4.95.

Starfire is an operational space combat game for two players, each controlling several ships. While the combat system has

some tactical flavor, the main emphasis is on the handling of fleets rather than single vessels. Ship movement is purely two dimensional, each ship possessing a movement factor and a turn mode (the number of hexes it must move before changing direction by one hexside). Movement factors are expended by moving one hex or by marking time (i.e., while movement is not mandatory, movement point expenditure is).

The sequence of play is first to determine who has the initiative (this fact is often specified by the scenario), and then to move all ships one movement factor at a time, the player with the initiative moving his last. Combat occurs next; the player with the initiative fires with one ship and then his opponent shoots, alternating until all ships have fired. Damage is inflicted immediately, though, making the right of shooting first a tactical advantage. After combat, ships with tractor beams may attempt to grab enemy ships, a process which brings benefits in subsequent combat and may allow "capture" of the ship for victory purposes at the end of the scenario.

At the heart of the game mechanics is the mix of offensive and defensive systems on the ships. Offensively there are guns, missiles and assorted beams, while the defense uses shields, armor, overload dampeners and point defense systems. Other ship systems include fire control, engines (the sum of engines is the ship's movement factor) and various non-combat types such as cargo holds.

For each system on a ship, a code letter is written in the ship's "control sheet" (i.e., scratch paper). For example, a Corvette might be SSAHRLI (which means 2 shields, 1 armor, 1 hold, 1 missile launcher, 1 laser and 2 engines). When a weapon fires, a dice roll equal to or less than that prescribed for the weapon at that range is needed for a hit. If the hit is made, the amount of damage is determined by cross-indexing the weapon type with range on another table. Each damage point wipes out a system, usually in order from right to left. Some weapons ignore shields or armor, while overload dampeners can negate certain types of hits.

There are ten scenarios, which are meant to be played in order. Drawn from two separate wars between earth and other star-faring races, they are representative of the progress of the wars, thus, they start simply and increase in complexity, mainly due to the increase of ships on each side and the addition of new systems. *Starfire* is both a multi-scenario game and a system that could be used for tactical combat resolution in another game or in a campaign context. Extensive information on building custom designed ships is included, with rules for repairs and modifications.

While many of the elements of this game are similar to other types of systems (e.g., naval boardgames and miniatures), the blend is an excellent and playable system with a lot of enjoyment potential, and is reasonably suited for solitary play. There is an irksome element, though. The designer has stated that the scale is one-half light-second per hex and ten seconds per turn. In this context, the weapons are unbelievably effective. Missiles can travel 20 hexes in one

turn (merely the speed of light) and guns can hit targets nearly a million miles away traveling at relativistic speeds. Rather than swallow this whole, it is better to forget what the scales are supposed to be and just play the game.

STARFIRE II

Task Force Games, 1980

Design: Barry Jacobs

30-page rulebook, 108 die-cut counters, 16" x 21" map, ziplock bag, \$4.95



This game, while complete in itself, is based on *Starfire*. In 9 scenarios it covers the conflict of the Terran Empire and the Khanate of Orion with the mysterious Rigelians. With minor deletions and major additions, the mechanics are those of *Starfire*; added is an Assault Movement Phase after combat for certain ships, followed by an attack phase for Fighters, a new vessel introduced here (along with "Fighter Carriers" for transporting them). This game does not contain the rules for ship construction and repair, though information about the new elements is provided so those rules can be applied. Like the original, *Starfire II* is fast and fun to play. The rules are comprehensive, well-written and complete. Learning them should be a snap even for an inexperienced gamer.

The flaws of the game are numerous but largely trivial, as in *Starfire*. Its mechanics seem more suited to sea-going than space-faring ships, and the putative scale is ludicrous. A purely cosmetic problem crops up in the usage of names, where the designer suffered an extreme case of cutes. The roster of Terran battleships sounds like the Grand Fleet at Jutland, which is not too bad compared to a class of battlecruisers including the Count of Transylvania, the Duke of Hazard and the Earl of Campbell. And while the "Comet" class may sound innocuous, it includes *Dasher*, *Dancer*, *Prancer* and *Vixen* as well. Khanate names are an unlikely col-

lection of phonemes that range in flavor from Arabic to pseudo-Slavic, while Rigelian names are simply Germanic. The High Seas Fleet is also added to the roster, and WW I armor as well, such as *Wespe*, *Hummel*, *Hetzler* and *Nashorn*. Going from ships to scenarios, one finds the Rigelian carriers smashed Khanate battleships "at anchor" at a base called "Paurl Harbor." After that, the Terrans, who could read their codes, beat the Rigelians in a battle at a place called Midway Station.

A more serious and functional flaw is in the use of fighters as missile firing ships. The rules allow all fighters in a squadron (up to 6 units) to fire a single volley, with as many as four missiles per fighter. A 24 missile volley will seriously damage, if not cripple, all but the most heavily protected ships. Since fighters can land, be re-armed, take off and get in firing position again in as few as 4-5 turns, this is an overwhelming capability tempered only by a limit on the number of missile reloads available. I would suggest that players making up their own ships and/or scenarios limit the size of fighter volleys so that a fighter-heavy force is not undervalued in game terms.

I don't think anyone who buys this game will be dissatisfied with it. Those owning *Starfire* will get additional interesting material, while those who do not own the original will still get a nice, fast, playable and non-taxing recreation at a low price.

STAR FLEET BATTLES

Task Force Games, 1979 (1980)

Design: Stephen V. Cole

Star Fleet Battles originally came in a package similar to that of *Starfire* at a \$4.95 price. However, a boxed "Designer's Edition" is now available (at \$12.95) with expanded components. The rules have been amended and enlarged, additional ships and bases added, the board made 50% bigger, and the little extras included, such as grease pencils and sheet protectors for marking ship control sheets, so that photocopies need not be obtained.

Star Fleet Battles is a tactical space battle game. While confined to only two-dimensional space, it is more highly detailed than *Starfire*. The game universe is at heart that of *Star Trek* (though probably for legal reasons, that title is never mentioned); the designer has tried to meld TV shows, "novelized scripts" and "semi-official" data into the game. It includes not only your basic Federation, Klingons and Romulans, but walk-ons as well like the Gorn and Kzinti (who were included when a Larry Niven "Known Space" story was adapted for a cartoon series episode). The Designer's Edition added the Tholians and "Orion Pirates [sic]" to the cast as well.

In *Starfire*, each ship contained a variety of systems; one hit destroyed one system, and when all were gone, so was the ship. In *Star Fleet Battles*, on the other hand, each ship system is represented by a group of hit boxes on the ship control sheet (a printed form, not just scrap paper). As long as any hit boxes remain, the system can still function, though possibly at reduced effectiveness. Once a system is entirely knocked

out it can still be hit; such hits count as "excess damage," but enough of them will destroy the ship even if other systems remain functional. However, allocation of hits to systems uses a fairly complex hierarchy schedule that spreads the damage around. Besides major starships, the game includes shuttlecraft carried aboard the starship which can undertake a variety of missions in battle. Also included are drones (guided torpedoes) as well as fighters (specialized shuttles).

The key operation in each game-turn is dividing up available energy among the weapons, defenses, movement and miscellaneous operations. After this is done, movement is pre-plotted. Movement resolution is broken up into as many as 32 impulses in which a ship can move at most one hex per impulse. Following movement in each impulse, weapons may be fired, damage taking effect before the next impulse. Each weapon can be fired only once per turn; deciding just when to pull the trigger is another "Command Decision" left up to the harried player-captain.

A variety of basic scenarios are provided, including the space amoeba and Doomsday machine familiar to TV viewers. There are two campaign games as well: The Captain's Game has the player trying to survive, intact and victorious, through six of the regular scenarios in a specified order, while the Star Fleet Defense Game pits the Federation against an invasion of Klingons or Romulans. There is also a mini-game representing the First Roman War that uses "primitive" ships on both sides. The Advanced Game rules and new races added in the Designer's Edition are covered by a rules section revising these basic scenarios, as well as adding a clutch of new ones. Heavily featured are the Pirates, but natural(?) disasters still appear: "The Moray Eel of Space," "The Cosmic Cloud," and "The Coming of the Meteor."

Despite the minute details with which the player has to contend, this is neither a difficult game to learn (mastering it is another matter) or to play as long as the player doesn't try to handle too many ships at once. Fleet actions with this game system are like division-sized battles for *PanzerBlitz* — for the fanatic only.

STAR FLEET BATTLES

Expansion Modules #1

Task Force Games, 1980

Edited: Stephen Wilcox and Barry Jacobs (over two dozen individuals are credited for various design elements)

38-page rulebook, 64 die-cut counters, 20 control sheets, ziplock bag, \$4.95

This is not a game in its own right, but rather a supplement to *Star Fleet Battles*. The rulebook opens with a brief explanation to this effect, followed by nine pages of "additional rules, errata [sic] and clarifications for the Designer's Edition." Then comes seven pages of new weapons, including the "Gatling phaser" (which can fire up to 4 times per turn), the Romulan Mauler (both an energy beam weapon and the ship which carries it), and improved types of Fighter-Shuttlecraft. Next follows five pages of new ship types, including some for two new,

(continued on page 33)

Games

QUIRKS

Design and Development: Bill Eberle, Jack Kittredge, Peter Olotka

Development: Ned Horn

Mail order and retail sales

Eon Products, \$12.00

Today's science and fantasy (speculative, collectively speaking) fiction authors possess an originality when plotting rationales unparalleled in any other fiction genre. Sf&f game designers, on the other hand, routinely display a lack of imagination reminiscent of the pulp writers of the 1930's. Consumers are expected to subsist on a steady diet of tactical space battles, clashes between and rebellions against empires, and enough elves, dragons and malevolent wizards to keep Faerie safe from Christendom forever. The recurrent use of these uninspired themes cannot be totally made up for by innovation in game design and sound development; the construction of a plausible background is as much the responsibility of a sf&f game designer as proper research is expected of the historical simulationist.

Eon Products is a vivid exception in this drab landscape of hackneyed backgrounds. The company debuted a few years ago with the marvellous *Cosmic Encounters*, which deserves recognition as a classic. Eon has never been afraid to tackle the most bizarre of subjects (which *QUIRKS* assuredly is), provided the end result is a simple multi-player design. An Eon product is almost always a combination of design and graphic craftsmanship. This high standard extends to their supplements, reinforcing Eon's uniqueness in the field. (When the full five supplements are added to *Cosmic Encounters*, it is not so much played as experienced. Impressive, but for experts only.)

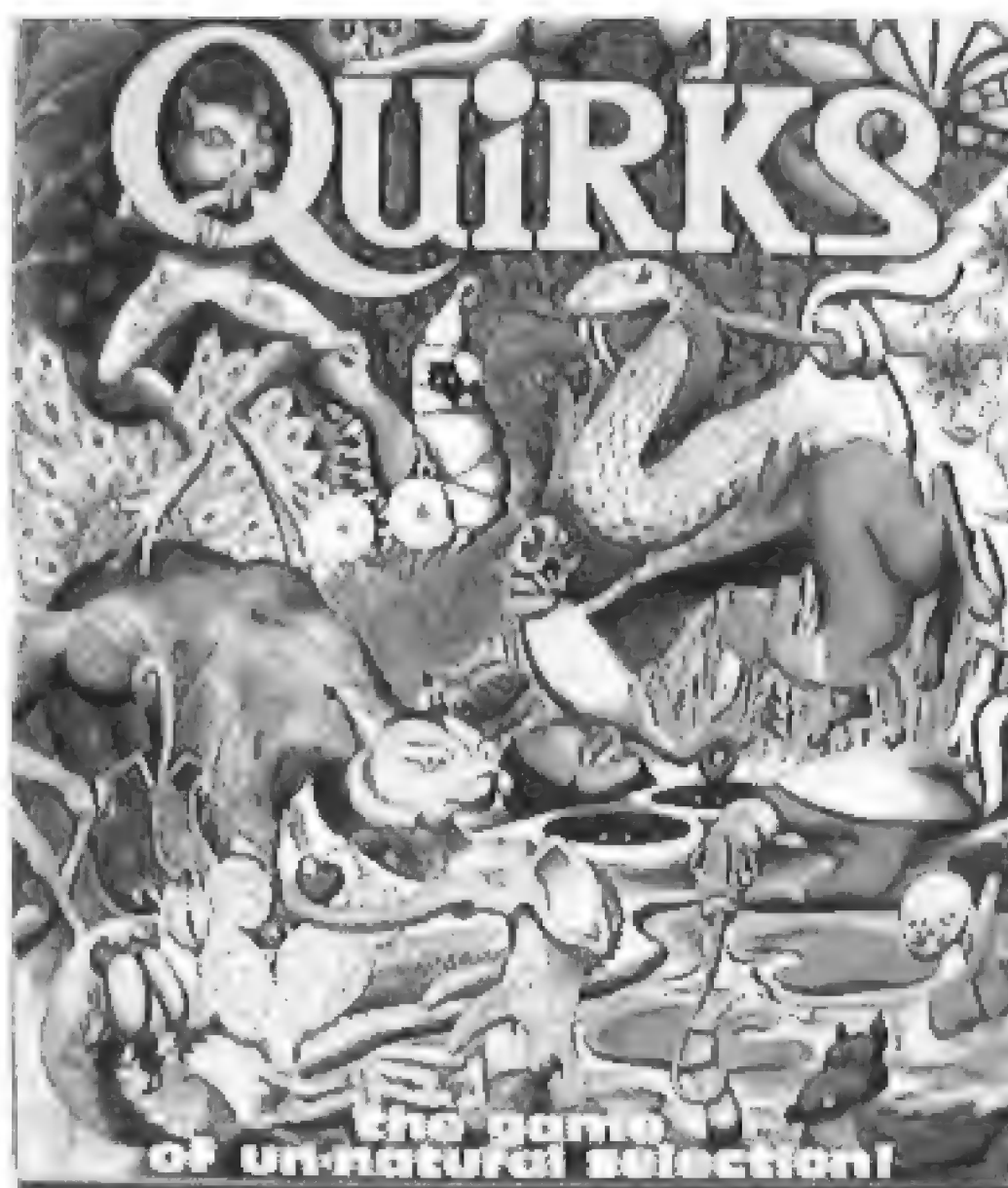
QUIRKS proudly bills itself as "the game of un-natural selection!" The colorful, attractive, strange and very crowded cover picture clearly indicates that the subject is evolution (of a sort), without a hint of the sexual deviation suggested by the sub-title. The word "loosely" is missing from a pronouncement that the game is "based on evolutionary principles," but, given a choice, Darwinians would play *QUIRKS* instead of going through a second Scopes' monkey trial.

The components are unusually flimsy for an Eon product. Everything but the rules must be separated by hand, and is printed on thin stock. However, none of the cards with which I played was in imminent danger of disintegrating even after three enthusiastic sessions.

Play of the game revolves around the use of 108 cards, which represent characteristics of plants and animals. Each plant or animal is divided into a head, trunk and tail, though some unfortunates must make do with only two parts. A card informs the player what trait the animal or plant is given (e.g., prehensile tail), and includes a pretty illustration which corresponds to this trait ("grinding teeth," for example, is accompanied by something which looks sus-

piciously like a horse's head). Atop the illustration are a few letters which, when the rest of the plant or animal is formed, will spell out a fanciful name. If you've ever wondered what a "trunkoon" was, now you know that it has an elephant's head, a sloth's body, and cocoons itself during the larval stage. The trunkoon, by the way, is one of the saner species you can encounter in *QUIRKS*world. (It may be because of my disinterest in Botany, but when you've seen one plant-*QUIRK*, you've seen them all.)

The evolution of the quirks (as complete plants and animals are called) is governed by a climate track. This track, for reasons known only to the designers, has nothing to do with climate, instead displaying ocean, forest, plains, desert and jungle environments. Also displayed are plant, herbivore and carnivore niches, which really are niches.



Play begins with the sorting of the cards into eight decks. A three-part quirk is placed in the upper three niches, while a two-part quirk is placed in the lower three niches. Since this process is random, the initial creations might be wholly inappropriate to the ocean environment, in which all creatures great and small begin. The players also draw hands, which consist of nine cards (a complete plant, herbivore and carnivore).

The object of this exercise is to possess quirks occupying the three upper niches. Each trait has a value, dependent on the current environment; the sum of the quirk's three trait values is a rating. The scales and fins which were so useful in the ocean will have to mutate into something on the order of digging claws if the quirk is to survive in the forest. A quirk must adapt to the changing environments if it is to prosper (or be owned by a player who is a good bluffer, but such a skill is not based on these vaunted principles of evolution).

A player begins his turn by picking a fate card, which tells him in which niche he may operate. If he has a quirk in that niche, he may mutate the quirk (a player can never have a quirk in both the upper and lower

niche). Mutation is the act of replacing a quirk part from one's hand or from the appropriate deck. If the lower niche is unoccupied, the player may build (ah — evolve) a two-part quirk from his hand or the decks to fill the vacancy. Drawing quirk parts from the deck gives the player variety, while playing cards from the hand gives the player control.

The third option available is to challenge another player's quirk. A player may challenge the upper niche quirk if he possesses the lower niche quirk, or the lower niche quirk if he owns neither quirk. A successful challenge is either the result of guesswork, bluff or dumb luck.

Each trait is coded for the environment in which it is most useful. A trait with code "OFJ" is desired in the ocean, forest and jungle environments, but anathema in the plains and deserts. These codes are concealed by the owning player's identity marker, and only he can look at them until a challenge to extinction is resolved. However, if the challenger can't guess that baleen teeth will help the challenged quirk in the ocean, he should try something less demanding, like *Uncle Wiggly*.

Whether a carnivore or herbivore has an appropriate food source also figures in the quirk's total value. If the colored symbol in the carnivore head matches that on the herbivore's tail, the carnivore gains points while the herbivore loses them. If the colors do not match, the herbivore flourishes and the carnivore doesn't. The same relationship holds true for the colored symbols on herbivore and plant heads.

The challenge procedure is styled on the traditional Eon challenge mechanic. The challenger completes his quirk: if the challenge is in the lower niche, a new two-part quirk is formed; if the challenge is in the upper niche, a third part is added to the lower niche quirk. The challenger looks at his latest wonder, and secretly decides whether he will go through with the challenge. The challenged player may then mutate the defending quirk, and then chooses whether he will accept the challenge. (My mind still refuses to accept the creature with a bear's head and shark's fins that I evolved in a moment of desperation.)

If one player has folded, the other obviously wins. If both fold, the challenged quirk retains his position. If both players elect to stay to the bitter end, the values are compared: the challenger wins only if his value is higher than that of the challenged. The losing quirk is extinct, and its cards are removed from play. Three extinct creatures end a player's feeble attempt at godhood: he's out of the game.

When a player's turn is over, he has a choice of moving a marker one or two spaces along the climate track (which really concerns environments, as you will remember), depending on whether he likes or dislikes the current environment. Just to keep things interesting, a random mutation occurs every six spaces, prompting the players to fresh fits of hysterical giggles as some new improbability emerges. And so it goes.

QUIRK has one more rule which gives away its Eon lineage. When one player has all the quirks in the upper niches, the other

players are allowed a series of last-ditch challenges to try to stave off defeat. This would have, had it been included, solved the major problem with *Cosmic Encounters*: the random nature of the fate discs often allows a player to sneak through to victory, possibly ruining what has been a fine diplomatic game.

QUIRKS has more serious problems than *Cosmic Encounters*. A player will soon learn the values of the various traits, even if he makes no conscious attempt to do so. This obsolescence can be alleviated by purchasing one or both of the expansion sets (seems I've seen this one before), which extends the playing "life" of the game. The lack of diplomacy I find to be uncorrectable; a game of *QUIRKS* is a series of one-to-one confrontations between players, with the cast changing in stately order from turn to turn.

Eon has also provided a solitaire and children's version. Solitaire *QUIRKS* is a puzzle, in which the player must meet a certain score from the hand dealt to him. I assume that, after a while, the player can look at the distribution of cards and accurately predict the precise result. The children's game is excellent. It not only can be played over and over without falling into a rut, it shows thought. For instance, the youngest child present is given the advantage of playing first. In an industry noted for terrible "tack-on" versions of games, *QUIRKS* is a refreshing change.

Any Eon game is faced with near-impossible challenge of being measured against *Cosmic Encounters*. *QUIRKS* doesn't, as might be expected, compare favorably with its predecessor, and, ultimately, is fun for only a limited number of times. The game is quite good until that point of diminishing returns is reached, and the premise is delightfully different. Buy *QUIRKS* if only to support a highly creative and eclectic company, and be amused in the bargain.

Dark Stars

Design and Development: Stephen M. Newberg
Mail Order and retail sales

Simulations Canada, 111 98 (bagged), \$13.98 (boxed)

Simulations Canada is Steve Newberg and Canada's modest-sized entry into the wargame field, not necessarily in that order. Since SimCan started a few years ago, Steve has shown a fine design talent, an occasional unfamiliarity with the English language (maybe a victim of a French separatist plot), and an ability to simulate campaigns from really obscure historical periods that transcends even the nascent GDW. He is so enamored of covering unappreciated military history that he says he will avoid science fiction for the foreseeable future. Too bad. If *Dark Stars* is any guide, he could be the first lucid proponent of "hard" science fiction to come along in quite some time.

Only two philosophies have been developed in more than one release in the adventure gaming field for serious science fiction. Redmond Simonsen propounded the first in *BattleFleet: Mars*, *StarForce* and the other games in that universe. Redmond's strict accuracy sometimes interfered with the play of these games, but he was grounded in

his scientific theory, and rarely erred in constructing his universe. The other is Marc Miller's rather flabby futures for the *Traveller* universe. Marc's extrapolations work well as background for adventure stories, but leave a lot to be desired for sf purists (who should see the misleadingly named *Space Opera* instead). With Simonsen's universe on hold with the continued non-appearance of *Against Four Worlds*, Newberg has taken the responsibility for addressing the future in a manner compatible with the latest astro-physical findings.

Do not be fooled by Newberg's guerrilla warfare with the English language. (At least he has a sense of humor about his shortcomings, after a fascinating ramble through a black hole/white hole theory, he dismisses us: "So much for background.") His science indicates he has read a goodly portion of the impressive bibliography, and understands his data base well. I steadfastly plump for double-star systems including (possibly habitable) planets, though Steve takes the correct and conservative approach that such systems do not.

A quick perusal through the components discloses a remarkable resemblance to *StarForce*. To paraphrase one of the truly lifeless clichés, don't judge a game by its components. The blue and gray map may be virtually identical in layout (even to the system display), the counters may be a variation of the *StarForce* theme, but the rules are entirely different. The counter graphics are nice, as is the MacGowan cover illustration, but the rest of the package is drab.

Our story begins in a galaxy inhabited by three star-faring races in the developing stages. The *dramatis* species are the Riin (advertised as quadrupedal; we know what Steve means...), the Gzel (a middle-class avian race), the Tassar or Tassar (the text fluctuates between spellings), and — to no one's great surprise — renegade Terran empire builders. The introduction of "Terran" into the lexicon is a nice example of life imitating art: some sf writer must have become tired with his bug-eyed monsters chomping on Earthlings, and reached back for his Latin lessons. No one thinks of himself as a Terran, yet that is how we will undoubtedly introduce ourselves to our first contact.

Newberg subscribes to the design rationale "every race to its own." Each race has a different method of faster-than-light movement and of combat, even though the relative technology levels are roughly equivalent. On reflection, this seems dubious: the history of inventions demonstrates that it is nearly impossible to develop many different, equally efficient methods of achieving the same goal. Or, to examine the corollary, it is probable that, even given these different methods, none of the races would discover a method identical to one of the other's within a group of four?

Dark Stars is primarily an exploration, colonization and economic game, with combat for the foolish or endgame, when all the good planetary systems have been settled. When one race meets another, the two players engage in diplomacy. The players do not have the usual full control over their *sans vis a vis* competitors. The system is

too sensible for bloodthirsty instincts. An interesting twist causes war to be more likely when contact is between few ships. Space fleets that encounter each other, however, are likely to negotiate a peace.

The goal of every player is to garner as many systems with high technological (tech) levels as possible. A system must be explored, then seeded with a colony, before it can be developed. One of the great pleasures of playing *Dark Stars* is the first foray into a star system. The ships pick their way through nine orbits, arrive at the planet, explore it, and — given any foresight by the player — establish an outpost.

The crucial decisions during the game are in economics. Each system produces double its tech level in econ points per turn, and these points are usable anywhere. Certainly that is an "unrealistic" abstraction, but it saves much tedious bookkeeping. These points can be used to build new units, raise the tech level of a planet, and must be spent to maintain planetary stability.

A planet's tech level can drop if it does not remain stable. The chance of a planet being stable is governed by the amount of econ points spent on it. An elegant variation on the star empire effect is achieved, because a player can choose between the conservative — and probably decadent — solidly-based power, or the expansionist empire racked with internal strife.

Movement for the three races native to the galaxy is treated as an extension of current physical law. Faster-than-light travel has been achieved, but the law of motion still applies: a ship travelling at FTL speeds must accelerate and decelerate between speeds. Thus, if a ship is travelling at five hexes per turn, it must travel a minimum of three hexes on the next turn. The Terrans use a one-way white hole/black hole transport net, in which a ship goes into a star to arrive at a destination from which it cannot return (by that route, at any rate). Combat is absurdly simple, using a table which could just as easily come from a basic wargame.

The forms provided for bookkeeping are not adequate. Players should make their own to photocopy and ignore the back of the rulebook.

Dark Stars is essentially a simple, time-consuming, solitaire exercise. Interplayer contact is discouraged by the system, which makes sense in light of the rationale. I cannot say the game is very rewarding face-to-face, but it should be an excellent play-by-mail vehicle. The rules are not complex enough to daunt a referee, and the time required of the players is just right for a postal campaign. I'm not sure this was the design direction Newberg sought to head in, but he should be commended for his treatment of the science and an interesting game.

Eric Goldberg



Film & Television

SCANNERS

Executive Producers: Pierre David & Victor Solada

Producer: Claude Heroux

Director: David Cronenberg

Screenplay: David Cronenberg

Cast

Stephen Lack	Vale
Jennifer O'Neill	Kim
Patrick McGowan	Dr. Ruth
Lawrence Dane	Keller
Michael Ironside	Revok

Writer/director David Cronenberg has a certain obsession; for one reason or another, getting things out of the human body has been the focal point of most of his films. In *They Came From Within* it was an alien strain of VD; in *The Brood* it was genetically twisted babies. Now, in *Scanners* it is other people's thoughts.

Cronenberg's "scanners" are a random group of people who gained tremendous mental powers due to an unsafe baby drug which upsets their normal development. The drug was quickly pulled from the market, but not before it had started several hundred infants on their way to becoming scanners.

The film begins with the most powerful scanner of all, Revok, attacking a government agency. He has determined to gather all willing scanners to his cause, and kill the rest. His target is a scanner working for the government. He manages to eliminate his target, and then escape two carloads of armed agents trying to stop him.

From this point, the plot slowly begins to unfold. The government's Dr. Ruth (Patrick McGowan) tells his agency that Revok (Michael Ironside) has either found or killed all of the other scanners except one, Vale (Stephen Lack), the last free scanner, is under Ruth's care. Ruth's plan is to send Vale after Revok to either stop him, or at least lead the government to him. Vale agrees in return for Ruth's help.

Cronenberg's premise is that scanners suck in all of the thoughts of the other people in the area around them. With the thoughts of dozens of people blasting at them twenty-four hours a day, most of the scanners have become recluses, living far from the majority of the world as they can. They are anti-social, angry, frightened; they are often backward in their speech patterns and untutored in the ways of social conduct.

Both Revok and Ruth have a drug which allows scanners to move about in crowds without suffering the side-effects of their powers. For reasons of his own, Ruth wants to bring peace to the scanners, while Revok wants them to ban together to rule the world. Secretly, he is administering the baby drug to pregnant women without their consent, his motive being to raise thousands of scanners to become his army.

It sounds like the stuff of "B" films, but it is not. Cronenberg has written a highly literate script, and directed it flawlessly. Due

to the length of the film, forty-five minutes were reportedly trimmed to bring it down to a more comfortable showing time. Although this does leave a noticeable hole in the film, it does not rob one of understanding. Whether or not the cut was truly necessary, it does not affect the quality of *Scanners*.

For the first time in many years, an honest, old-wave "hard" science fiction movie has been made. Recently, we have gotten into the habit of equating science fiction films with space battles and laser shoot-'em-ups. We have forgotten of late what the term really means. *Scanners* is a welcome addition to a genre of film much broader than close encounters and jedi knights.



At first glance, *Scanners* appears to be just another horror movie. Avco Embassy's own promotional material calls the scanners people who "possess mental abilities which are supernatural..." which is totally misleading. The film's action arises from a research scientist who discovers a product he feels will help mothers through pregnancy, which he tests on his own wife and then markets. There is no netherworld influence involved. This confusion has caused a number of people to dismiss the film out of hand, simply because they have not understood it. Many elements, clearly outlined in the film, have been called unclear by the critics. Vale's stuttering and wooden speech patterns have been labeled bad acting. Yet in the beginning of the film we are told the man is awkward because of his years of limited social contact. We are told he does not know how to speak. We are also shown that the scanning process is the linking of one person's nervous system to another. Later, telephone and computer systems are compared to human nervous systems. Yet when Vale connects his nervous system to a computer, several critics have charged that this portion of the film makes no sense.

Cronenberg's problem here is that he has disguised an intelligent, audience-demanding film as just another horror-quicksie. It is not. Despite the emphasis placed by the film's advertising campaign on the movie's special effects, it is still an amazingly coherent and trenchant piece of work.

An interesting facet of the film is the "scanner" symbolism which runs throughout. Cronenberg brilliantly portrays the anguish of his scanners in two scenes, both including the works of an artist who is a

scanner. All his sculptures show trapped people or figures, or just heads trying to release things from within which do not belong there. These scenes offer an excellent insight into the unusual mental process of a scanner.

Similar scenes, often filled with incredible bits of understated filmmaking, coupled with the imaginative use of special effects which abound, make *Scanners* an excellent film, although a tough one at times to sit through. The film is much like *Alien*; although both are firmly rooted in science fiction, they are both still horror films. Cronenberg himself says, "I want to scare people. I want to provide a mood that combines the physically terrifying and mentally unsettling — and I think I've accomplished this in *Scanners*."

He is correct. Many of the scenes throughout the film, especially the final duel between Vale and Revok are gritty, rough, bloody, frightening sequences. Unlike so many of his contemporaries, Cronenberg taxes his audience to the limit, demanding that they both think and feel throughout the film. He has made an excellent film while not underestimating the people who would be watching it. *Scanners* is top-notch entertainment. It is haunting, exciting, shocking and literate — an unusual combination to discover in a film these days.

Christopher John

HANGER 18

Producer: Charles E. Seltzer, Jr.

Director: James L. Conway

Screenplay: Steven Thornton

Cast

Darren McGavin	Harry Forbes
Robert Vaughn	Gordon Can
Gary Collins	Steve Bancroft
James Hampton	Low Price
Joseph Campanella	Frank Lafferty

Hanger 18 is at heart the best television movie ever made. If you missed it in your neighborhood theater, don't worry; it should be on TV by the end of the year. Not that *Hanger 18* is a bad film, it is merely a very uninspired one.

A satellite is being launched into orbit from a space shuttle, as the film opens. The satellite crashes into a UFO, knocking the ship from the skies and killing one of the shuttle astronauts. Since the revelation of the flying saucer would hurt the incumbent president's re-election chances (he has been a big "there are no UFO's" supporter), the White House Chief-of-Staff (Robert Vaughn) covers up the crash. The UFO is found and then hidden, and the blame for the accident is laid on the two surviving astronauts, the idea being that after the election "the truth" will be revealed and the astronauts cleared.

No one bothers to tell the astronauts, however. Determined to unveil the cover-up, flyboys Gary Collins and James Hampton play detective, getting involved in car crashes and killing secret service men right and left as they close in on the stalled flying saucer.

In the meantime, government teams pour over the ship, discovering the secrets of man and the universe in about a week roughly.

All in all, *Hanger 18* is not a bad film. Relying heavily on the "Chariot Of The Gods" theory, it weaves a pseudo-scientific explanation for flying saucers, "proving" that ancient astronauts were the missing link which started the cavern on his way to the suburbs. There are sturdy performances by Darren McGavin and Joe Campanella as well as by everyone else. The special effects are very good. The hard and software portrayed lend a good deal of believability to the film.

The major problem is that we have seen it all before. Between Saturday morning cartoons, Erich von Daniken, and a lot of recent space operas, there is nothing new in *Hanger 18*. Try as it may, it is just a rehashing of all the rumors and theories that have been heard since the mid-60's. The movie itself is based on the popular story that the government really did find a downed UFO in the desert, complete with intact alien bodies. This tale surfaces every few years, with not-to-stable people cursing the evils of American politicians for hiding such a spectacular find.

Despite the fact that a lot of people consider the film to be something of a documentary, it isn't; there is no actual *Hanger 18*. Taft International has delivered a well-made, tidy little movie, but nothing more. It is pretty to look at, occasionally involving, and does have an upbeat ending, but it also has no real surprises.

Hanger 18 is the perfect Sunday evening movie for television. If you watch closely, you can even see the spaces they planned for the commercials.

Christopher John

STARBLAZERS

Producers: Yoshinobu Nis, Osamu Tezuka
Director: Toshio Masuda
Animation Director: Noboru Ishiguro
Screenplay: Katsuko Fujikawa, Eiichi Yamamoto
Music: Hiroshi Miyagawa

As in so many other things, America once led the world in the field of animation. The dynamic strength characteristic of this country showed through in our cartoons. Our heroes were the likes of honest and clever Mickey Mouse or strong and fearless Popeye the sailor. American cartoons, while wild and colorful, were eight minute morality plays, constantly showing the underdog triumphant. Movie houses were packed just as easily by the newest Bugs Bunny short as they were by Bogart, Cooper or the Three Stooges.

Two things helped knock American animation into the basement: soaring production costs and the voracious appetite of television, both of which cheapened the product. While TV audiences wanted more new cartoons every day, rising prices forced studios to cut corners. In the 1940's, the Warner Studios turned out approximately 160 minutes of animated fare a year. In the 1960's, Hanna-Barbara was turning out 75 to 90 minutes worth a week. Today, there is little quality work being done at any of our country's studios.

Such work is being done, however, in Japan. During the early 1960's, shows such as *Kimba The White Lion*, *Gigantor* and *Astroboy* were imported to our shores. They were instant hits. They had action, pathos,

and an unformulated sense of wonder sorely lacking in our own shows. American adventure cartoons always came in short seven or eight minute lumps: find monster, kill monster, make world safe, hug girl. The Japanese competition offered half-hour stories which sometimes continued three and four episodes. The story lines were tight, the characters fresh, and the animation far superior to what anyone else was doing.

Finally, in the early 1970's, a full length animated feature entitled *Space Cruiser, Yamato* was released in the Japanese theaters. It was the tale of a resurrected World War II battleship rebuilt as a space-going dreadnought that was to be used in a desperate attempt to prevent the destruction of the earth. The success of the film was astounding, breaking box office records throughout Japan. Quickly, the show's producer, Osamu Tezuka, padded out the movie's storyline into 26 half-hour episodes. In 1974, *Space Cruiser Yamato* first aired on Japanese television during prime time. It was a smash success and consistently took a 40% share of the audience.

Since then, there have been three more feature films, and 78 more episodes made from them. Last summer, the fourth Yamato feature outdrew *The Empire Strikes Back* at the Japanese box offices. Throughout the world, *Yamato* (renamed *Starblazers* for foreign markets) has proved itself both highly salesworthy and easily merchandised. Only in America have set-backs kept the show from the public. In syndication here since the fall of 1979, only a relatively few people know of the show.

One of the primary reasons for the show's failure is that that none of the networks wanted it. Blissfully ignoring the fact that the show drew huge adult audiences around the world, the big three turned it down solely because it was a cartoon show, and "every-one knows that cartoons are only for kids."

Failing to reach the prime-time American market, *Starblazers* was sold into syndication. Further troubles were awaiting it, however. Like the networks, local stations around the country refused to believe a cartoon show could interest anyone but children. Thus, it was aired at 6:00 in the morning or 2:00 in the afternoon, if and when it got on the air at all.

An adverse market has not kept the *Starblazers* down. Wherever it has been aired, the show has picked up enormous grass root support. The reasons for this enthusiasm are obvious. First, *Starblazers* has been excellently dubbed into English. Unlike the quick-cram-in-a-lot-of-words-real-fast style of earlier imports such as *Speed Racer*, the dubbing here is crisp and well-paced. There is more acting than reciting in evidence. Second, even though *Starblazers* makes use of as much limited animation as the next cartoon, it does so much more creatively. Because director Toshio Masuda uses live-action film techniques, even when the characters stand around in conversation, they are shown using close-ups, pans, and jump-action. Masuda gives *Starblazers* near wide-screen depth through the attention he has paid to background details in his "sets" and his camera work.

Finally, the decision to let the storyline

continue for thirteen hours a story has allowed the crew of the Yamato to develop true personalities. Nearly all American animation is interchangeable. There is no development; the episodes can be shown in any order. Tezuka and Masuda realized that their characters, like people, needed to lead linear lives so that they could grow. Unlike *Star Trek* even with its relatively well-developed characters, no one aboard the Yamato falls in love in a half an hour, or walks on screen for a few seconds to die conveniently. The *Starblazers* develop their friendships, love affairs and hatreds slowly, normally. When someone dies, it is just as likely to be a major character as an extra.

Behind this rather unusual script development lies the fact that the crew of the Yamato is not with the show's emphasis lies; rather, it is with the Yamato itself. In Japan, the ship is the show's major character. The Yamato symbolizes strength, courage and perseverance. Small, and always outnumbered, still it can not be stopped. The Yamato is more than a machine — it has a soul. For the Japanese, the Yamato is almost alive.

Because of this quirk, when the show is translated, it takes on a quality of real life usually reserved for soap operas. In truth, *Starblazers* might well be called a never ending science fiction soap opera. When shown in the US in a five-times-a-week format, it is nothing more than a soap for heroism junkies. Watching an episode here or there is harmless fun, but starting at the beginning and watching twenty-six episodes in a row is something more. Suddenly you know the people in front of the screen. You discover the painful reasons why Wildstar is a loner; why Avatar drives his crew the way he does; why Nova loves Wildstar and not Venture, etc. It is a continual unfolding of human drama, sometimes funny, often touching, but always real.

There is little point, and no room for, a description of the plotline. With 52 episodes already translated and on the air in America, and another 52 being translated at present, it would be impossible to do the series justice in the space available.

The show is rapidly becoming a cult phenomenon. Like the British import, *Dr. Who*, *Starblazers* has received a lot of good press. Without once having been on during prime time anywhere in the country, the show has gathered a following totalling in the hundreds of thousands.

Furthermore, unfortunately, by not being a network show, it can also be pulled from the air at any time, as viewers in New York City discovered when a local station pulled it without warning in mid-continuity. When the same happened in Washington, D.C., audience response was fierce enough to have the show put back on the air the very next day.

Starblazers is well worth more than one viewing, even if it is run at 6:30 in the morning. It may be the only chance you'll have to see a beautiful and exciting work of art.

Christopher John



Media

Coming Soon to a Theatre Near You — Maybe

When movies meant a first-run double feature plus a newsreel, cartoon, and assorted short subjects, going out to them for an evening was literally that — an entire evening spent inside the theatre, sing-alongs and all. Through the years these embellishments on the basic program have been pruned away save for one persisting bastille of fun at the movies, one holdout.

Coming attractions. Previews. In a word, trailers.

"Trailers" are so-called principally because they used to follow the feature, that is, trail after it. Look it up in the dictionary. These mini-epics, often several minutes long, form a separate entertainment in and of themselves — revival houses frequently sponsor "trailer fests," preview-orgies lasting up to five hours straight. For television audiences attuned to attention spans of sixty seconds or less, trailers are often more coherent than the films they encapsulate. For film buffs they are heaven, representing collectible chunks of complete features with scenes cut together for best effect inside of a high-intensity, fast-moving framework. Even the most execrable feature-length effluvia can be made to look good by a canny trailer.

Unlike TV spots, produced in 16mm for home consumption exclusively, trailers are rendered in 35mm and are even rated separately, but according to the same criteria, as features. Recently the MPAA cards for trailers were revamped to conform to a color code like that previously used in packaging the trailers for shipping; thus, on a "green band" trailer you will now see a green background declaring for what audience the trailer is suitable. Red band (R-rated) trailers can only be shown with R-rated features; these can often be more potent than the features themselves since graphic effects relating (usually) to the twin bugaboos of sex and violence are packed closer together, by nature of the trailer medium. Again, the colors you see refer to the trailers, not the films, which is why *Scanners* can have both a PG-rated trailer to run ahead of Disney features, as well as a red-band trailer to prime the exploding head crowd.

Trailers represent a peculiar substructure in the hierarchy of film and film advertising, as do their shorter brothers, "teaser" trailers. Teasers are quick shots, titillation embodied, usually synthesized before there is any actual film footage on which to draw for publicity. They generally consist of ad art, narration, a catchphrase or two, and are salted with either still pictures or snaps of a film's earliest completed footage. Both forms require a special knack for editing, dealing as they do with a severely compressed time frame in which an impression must be left on the viewer — though some trailers are so efficient they frequently blow the entire story and every good scene in advance of release, save, almost always, for the kicker scene of denouement.

The teaser for *The Shining* was almost better than the film. In her glowing assessment of Walter Hill's *The Warriors*, Pauline Kael cited the trailer for same as a marvelous mini-epic by itself; the Greenberg brothers launched an entire career in visual effects on the basis of their highly evocative work on the original *Superman* trailer. They are collectables, they are the stuff from which filmclips are made and frame blowups taken (often, for magazine articles), they frequently include scenes missing from finished features...and you may be seeing less of them, since National Screen Service (NSS) fomented their recent rate hike.

NSS is the number-one promotional entity in the business, cranking out trailers, onesheets, stills, lobby cards and other such paraphernalia, all leased to exhibitors virtually at cost. It is kept afloat by a sort of common kitty among the major studios in the form of an annual fee, in return for which NSS represents a common locus for advertising material — much simpler than a similar department for each studio. Given these facts, in addition to postage costs which the exhibitor, not NSS, pays both ways, why a rate hike?

An individual trailer must cost approximately \$60 to produce. It is rented to theatres for approximately \$10 per week, per trailer. If the exhibitor keeps the trailer, he is out \$10 and NSS is out \$60 if it's a first rental. NSS policy as regards the return of trailers after use encourages attrition and has formed the basis for a thriving trailer-collecting vogue. All NSS items specify that they must be "returned or destroyed" after use — well, given that choice, what would you do with a mint *Empire Strikes Back* trailer for which you know people would

pony up ready cash?

"Destruction" means dumping the trailer in the waste bin. Since NSS demands no box of ashes, or affidavit, as proof thereof, plucking the film back out of the trash proves not only expedient, but desirable. The loss rate for NSS is high enough to worry them, and postage rates are upward bound, the response to these trends, plus the new rate hike, by exhibitors may be simply to book fewer trailers. The viewer loses again.

Ironically, those "costly" trailers are often available to collectors shortly after release of the films they promote, and for a fraction of the NSS rate. Think \$1 is too much for that *Shining* trailer? Think again. You cannot patronize NSS unless you're an institution, which means of conventions, film workshops and the like are out of luck unless they go the collector's route. The market for collectors is healthy in spite of the witch-hunt approach used by those worthies who make their dole by combating so-called film piracy — their sights have shifted to the videotape industry, since more money is to be made there. As *Star Wars* goes, so goes the FBI.

Theatres, of course, cannot totally eschew trailers since there is a certain degree of determinism in the name of proper advertising exposure. And some come totally free. Teasers are frequently tacked onto the heads of prints from a single studio, as with Avco-Embassy's *The Howling* (on *Scanners*), 20th Century-Fox's *Wolfen* (on *Sphinx*), and Universal's *Conan* (on *Flash Gordon*).

Ah, trailers are so much fun that the most crucial question about them can be blithely ignored.

But are they Art?

David J. Schow

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Books

Myth Conceptions, Robert Lynn Asprin, Starblaze Books, \$4.95 (trade paperback)
Tales from the Vulgar Unicorn, ed. Robert Lynn Asprin, Ace Books, \$2.25
Transfigurations, Michael Bishop, Berkley Books, \$2.25
Dragon's Egg, Robert L. Forward, Del Rey Books, \$2.25
Expanded Universe, Robert A. Heinlein, Ace Books, \$8.95 (trade paperback)
The Spell Coats, Diana Wynne Jones, Pocket Books, \$2.25
Songs from the Stars, Norman Spinrad, Pocket Books, \$2.50

Robert Asprin, better known in the Society for Creative Anachronism as Yang, is the author of several mediocre science fiction novels, including *Tambu* and *The Bug Wars*. His forte, however, seems to be fantasy, as evinced by his latest two offerings.

Myth Conceptions is Asprin's sequel to his popular (and excellent) *Another Fine Myth*. The protagonist of both books is Skeve, an apprentice wizard in the land of Klahd. His master is a demon from Perv — a Pervect if you're polite, a Pervect in common parlance. In the first novel, the two defeat an evil wizard and therefore save the multiverse from conquest. In *Myth Conceptions*, the two are hired as court wizards to defeat an army of tremendous size, a task complicated by the fact that one court wizard has vowed to kill them if they succeed, while another is determined to do the same if they do not. This is heroic fiction, of a sort; needless to say, they accomplish the task.

Science fiction's pretensions to the status of a literature are, perhaps, best supported by its more humorous works, such as Anderson and Dickson's *Earthmen's Burden* and the works of L. Sprague de Camp. Yet the field of humorous science fiction has too long been without a steady practitioner. Asprin fills the gap admirably, and it is to be hoped that he will continue in the same rich vein.

Tales of the Vulgar Unicorn, edited by the self-same Asprin, is the second in a series of short story collections which began with *Thieves' World*. Asprin's concept behind the series centers on a city in a fantasy world he has designed; he has invited a number of noted science fiction writers to write stories based in the city. Writers are free to use (but not abuse) characters invented by other writers. The result is a sort of multi-hero fantasy epic — something which should surely appeal to players of fantasy role-playing games (which, after all, are attempts to game multi-hero fantasy).

Several critics are disappointed with *Vulgar Unicorn*, claiming that its stories do not have the *eclect* of *Thieves' World*. To the contrary, *Vulgar Unicorn* is a more interesting and richly developed book. One of its most intriguing features is that the stories build on each other as the book progresses — despite the fact that each is written by a different author. The result is a work midway between a collection of short stories and a novel. The first story in the series is Philip

Jose Farmer's *The Spiders of the Purple Mage*, which leads one to believe that Asprin is not the only victim of the Loathsome Punning Disease.

Tales of the Vulgar Unicorn and *Another Fine Myth* are excellent reading. If you're suffering from the Hong Kong-Asian-mid-winter flu, take two Asprin and read in bed.

Robert Heinlein's *Expanded Universe* is idiosyncratically Heinlein. It is an expansion of the old *Worlds of Robert A. Heinlein*, printed some years ago by Ace. That volume included several of Heinlein's early short stories, plus an essay called "Pandora's Box," which purported to be a prediction on what the world would look like in the year 2000. The expanded version includes all of the former, plus several Heinlein stories not collected elsewhere and a lot of his non-fiction. The stories are mostly non-science fiction, or marginally in the genre at best. The non-fiction is more or less equally divided among essays about science and essays about Heinlein's own unique political philosophy — which can best be described as militaristic libertarianism.

Expanded Universe is a book for the completist, the Heinlein devotee, and those interested in seeing what Heinlein the man, rather than Heinlein the writer, actually believes. The political essays may be of interest to someone delving in political economy, though they are more forceful statements of opinion than incisive analysis. Some of the essays — notably Heinlein's fascinating description of his trip to Russia, and his well-written account-for-the-layman of Dirac's theories of antimatter and gravitation — will be of interest to almost anyone. For the most part, however, the stories have either been seen elsewhere or are exceptionally minor Heinlein, while the non-fiction is more interesting for the insight it gives into Robert A. Heinlein than for any inherent reason. \$8.95 is, it seems to me, a bit much to pay.

Robert L. Forward's *Dragon's Egg* is an attempt to out-Clement Hal Clement. It deals with life on a neutron star.

Forward is, according to his biography, a pioneer in the field of gravitational astronomy, so presumably he knows his subject. His scientific expertise shows; the nature of a neutron star is explored in some depth, and his aliens are well-thought out and believable. On an object where gravity is nine orders of magnitude greater than earth's, matter as we know it does not exist; rather, most matter consists of neutrons. Strong nuclear force reactions take the place of electromagnetic reactions on earth; and these reactions are of sufficient complexity to permit the evolution of self-reproducing entities and, eventually, consciousness. Strong nuclear force is orders of magnitude stronger than electromagnetic forces; consequently, the beings on Forward's star live many orders of magnitude faster than human beings.

Fortuitously, Forward's neutron star wanders near Sol at a propitious time in the development of his race's culture. The Terrans arrive just as the aliens gain the capability to communicate with the ship above their star. The contact is necessarily limited by the

difference in time rates, fifteen human minutes is an alien generation. However, through the miracle of microprocessor technology, the humans are able to transmit information to the aliens at something approaching their own baud rate, so to speak.

If Forward's scientific expertise shows in his book, his lack of writing expertise shows as well. The book is written in awkward and occasionally stilted language, the aliens are excessively human-like for such non-human creatures, and the story is less a tightly-plotted novel than a logical exploration of the consequences of Forward's premise. For all of that, *Dragon's Egg* is interesting because it is the epitome of what "hard" science fiction is all about — extrapolation of the most interesting facets of scientific knowledge and speculation.

If Robert Forward's strength is his science and his weakness his writing, Michael Bishop has the reverse problem. The best example of this, was his *Catacombs*. Years, a collection of short stories about people living in closed cities cut off from the outside world. That book contained some of science fiction's best writing, but the rationale for the creation of Bishop's cities and their continuing existence was extremely weak.

Transfigurations is based on Bishop's award-winning short story, "Death and Designation Among the Asadi"; the short story is included in the novel, interspersed among other passages. The short story dealt with an anthropologist's stay among a group of technologically primitive and culturally bizarre aliens, termed the Asadi. In the story, the anthropologist either went slowly insane, or made some remarkable discoveries which he was unable to document. *Transfigurations* deals with the efforts of the anthropologist's daughter and colleague to vindicate his work and discover the true nature of the Asadi.

"Death and Designation" was a haunting and sparsely-written account which did much to establish Bishop's reputation. Its subject matter, however, was precisely suited to the length of a short story, and the novel is, in a sense, superfluous. It explains in detail the events of "Death and Designation"; and, in the process, trivializes the mysterious occurrences of the story. The explanations are an amalgam of bot-killer flimsy elements better treated elsewhere. One cannot escape the feeling that Bishop should have left well enough alone.

None of this discussion should be construed as an attempt to dissuade you from purchasing the book. Despite its narrative flaws, *Transfigurations* is exceptionally well written, and Bishop is a writer whose work deserves close attention.

Norman Spinrad is one of those writers who is greater than the genre in which he works. Assuming that the trend toward academic acceptance of science fiction as a valid form of literature continues, it seems inevitable that Spinrad will eventually be recognized for the giant that he is. His work is assuredly among the best being written today — and it is improving. One trusts he has not reached his peak.

Songs from the Stars shares many of the themes of Spinrad's last few novels,

(continued on page 36)

GAMES RATING CHARTSCIENCE FICTION & SCIENCE FANTASY

| Title | Pub Date | Price | Acc | % | Comp | Time | Sol | Title | Pub Date | Price | Acc | % | Comp | Time | Sol | |----------------------------|-----------|-------|-----|-----|------|------|-----|----------------------------|------------|-------|-----|-----|------|------|-----| | 1. Traveller | GDW 7/77 | 12.75 | 38 | 8.2 | 5 | 5.5 | | 16. Droids | SPI 11/79 | 4.91 | 49 | 8.1 | 5.1 | 2 | 5.8 | | 2. Imperium | GDW 12/77 | 10.73 | 32 | 8.1 | 6 | 2.5 | | 20. Tunnels & Trails | FD 75 | 8.01 | 89 | 8.0 | 5.5 | | | | 3. Crusaders/Shogun | SPI 4/79 | 4.71 | 83 | 5.8 | 1 | 0.5 | | 21. Volcanic Crisis | TTS 1/80 | 4.83 | 9 | 8 | na | na | na | | 4. SEV | MGC 76 | 2.71 | 41 | 5.9 | 2 | 5.5 | | 22. Gendai | SPI 11/77 | 4.89 | 30 | 5.5 | 4.5 | | | | 5. Freedom in the Galaxy | SPI 8/79 | 28.75 | 70 | 7.8 | 7 | 6.5 | | 23. En Garde! | GDW 7/75 | 10.89 | 18 | 5.7 | 2 | 6.2 | | | 6. Omega | MGC 5/77 | 3.78 | 62 | 4.8 | 1 | 0.5 | | 24. Arena of Death | SPI 9/80 | 8.80 | 80 | 6.0 | 1.0 | | | | 7. Starfall Battles | TTS 11/78 | 13.78 | 23 | na | na | na | | 25. Empire of Piled Towers | TTS1 9/77 | 29.59 | 59 | 21 | 7.4 | 6 | 5.5 | | 8. Cosmic Encounters | EP 76 | 12.70 | 23 | 3.5 | 1 | 2.5 | | 26. Starman | SPI 11/77 | 4.50 | 20 | 8.8 | 4 | 5.5 | | | 9. Dark Nebula | GDW 2/80 | 6.88 | 11 | 5.8 | 2 | 2.8 | | 27. Dragonlance | TTS1 12/79 | 15.55 | 8 | 5.5 | 0 | 2.5 | | | 10. BattleTech: Mars | SPI 4/77 | 15.88 | 32 | 8.8 | 3 | 3.8 | | 28. Sacks and Stones | MGC 76 | 3.57 | 20 | 5.0 | 2 | 6.5 | | | 11. John Carter of Mars | SPI 5/79 | 28.87 | 32 | 8.8 | 4 | 6.5 | | 29. Wizard's Quest | AH 7/9 | 15.56 | 5.1 | 4.5 | 2 | 2.0 | | | 12. Stellar Conquest | MGC 2/76 | 13.87 | 72 | 6.8 | 3.8 | | | 30. Demons | SPI 11/79 | 4.56 | 32 | 5.2 | 7 | 3.0 | | | 13. Top Gear | SPI 7/80 | 9.85 | 8.0 | 2 | 7.8 | | | 31. Elric | TC 7/77 | 6.55 | 8 | 4.5 | 3 | 3.0 | | | 14. Objective: Moscow | SPI 3/78 | 27.85 | 18 | 5.0 | 3.0 | 2.8 | | 32. Sorcerer | SPI 10/75 | 12.55 | 80 | 8.0 | 2 | 8.0 | | | 15. Trepang | GDW 9/73 | 10.85 | 12 | 5.7 | 2 | 4.8 | | 33. Swordquest | TTS1 12/79 | 15.55 | 8 | 5.5 | 0 | 2.5 | | | 16. Vulture & Vengeance | FDG 86 | 0.85 | 5 | na | na | na | | 34. Monsters Men | MGC 76 | 4.55 | 15 | 8.0 | 1.0 | | | | 17. War of the Pandas | SPI 5/80 | 6.88 | 89 | 6.8 | 3.78 | | | 35. Beast Lord | YP 8/79 | 15.54 | 6 | 7.0 | 4 | 5.0 | | | 18. Skyshot | GDW 8/79 | 6.88 | 79 | 5.3 | 1 | 4.8 | | 36. Stamp! | TC 11/79 | 3.54 | 10 | na | na | na | | | 19. After the Volcano | SPI 1/77 | 14.85 | 22 | 7.5 | 7 | 7.8 | | 37. Chulid | FDG 86 | 5.5 | 8 | na | na | na | | | 20. Mayday | GDW 2/78 | 5.82 | 21 | 4.8 | 2 | 4.8 | | 38. Tides of Chaos | SS 76 | 3.54 | 8 | na | na | na | | | 21. Starship | AH 7/76 | 15.82 | 53 | 5.8 | 2.35 | | | 39. Lords & Wizards | FDG 86 | 12.55 | 8 | na | na | na | | | 22. Starweb | FD 76 | 10.82 | 12 | 5.5 | na | na | | 40. King Arthur's Knights | TC 7/78 | 10.51 | 9 | na | na | na | | | 23. Invasion: America | SPI 12/75 | 10.88 | 29 | 5.5 | 8 | 4.5 | | 41. Arthur's Gravy | GG 79 | 28.51 | 11 | na | na | na | | | 24. Bloodline Rebellion | GDW 11/79 | 13.81 | 28 | 6.0 | 5 | 2.9 | | 42. Star's Revenge | TTS 76 | 7.50 | 22 | na | na | na | | | 25. GDW 4/78 | 12.88 | 11 | 5.8 | 4 | 2.5 | | | 43. Spacebuck | BL 86 | 5.8 | 7 | na | na | na | | | 26. Starline | SPI 9/74 | 12.88 | 45 | 8.0 | 4.5 | | | 44. Mythology | YP 4/80 | 14.50 | 8 | 7.0 | 3 | 4.5 | | | 27. Outrigger | SPI 11/78 | 12.88 | 38 | 6.0 | 5 | 4.8 | | 45. Starship Stars | YP 80 | 7.49 | 5 | na | na | na | | | 28. Dune | AH 6/79 | 15.80 | 25 | na | na | na | | 46. Dragon Lords | SS 76 | 4.8 | 4 | na | na | na | | | 29. Star Fall | YP 8/79 | 13.50 | 9 | na | na | na | | 47. Sword Quest | TTS 12/79 | 5.49 | 13 | na | na | na | | | 30. War in the Ice | SPI 1/79 | 12.58 | 28 | 8.0 | 9 | 4.8 | | 48. Knight Round Table | SS 76 | 8.49 | 4 | na | na | na | | | 31. Star Soldier | SPI 1/77 | 12.58 | 27 | 7.1 | 3 | 3.5 | | 49. Knights of Camelot | TTSR 86 | 4.8 | 5 | na | na | na | | | 32. Godfire | MGC 79 | 5.8 | 14 | 7.1 | 6 | 1.5 | | 50. Magic Realm | AH 8/79 | 15.48 | 36 | 7.0 | 3 | 1.8 | | | 33. Sorcerer Battle Manual | GS 77 | 6.59 | 19 | 6.3 | 1 | 1.8 | | 51. Demons & Dragons | FDG 86 | 5.47 | 8 | na | na | na | | | 34. Wary War | MGC 77 | 3.58 | 37 | 4.5 | 1 | 5.8 | | 52. Chessmen | TTSR 75 | 6.47 | 15 | na | na | na | | | 35. Time War | YP 8/79 | 13.50 | 8 | na | na | na | | 53. Lordmaker | TTSR 8/78 | 12.45 | 12 | na | na | na | | | 36. Marine 2002 | YP 12/78 | 17.50 | 6 | 8.1 | 4 | 5.8 | | 54. War of the Wizards | TTSR 86 | 4.5 | 10 | na | na | na | | | 37. Starfire | TTS 8/79 | 5.57 | 8 | na | na | na | | 55. No | YP 80 | 7.45 | 10 | 4.5 | 2 | 7.0 | | | 38. Omega | SS 76 | 10.57 | 3 | na | na | na | | 56. Conans Day | RP 80 | 4.50 | 4 | 2.5 | 1 | 1.0 | | | 39. StarGate | SPI 4/79 | 4.57 | 30 | 5.5 | 2 | 5.8 | | 57. Out of 5 Armies | DSR 86 | na | 4.4 | 8 | na | na | na | | 40. Dymosa | MGC 76 | 3.58 | 28 | 6.5 | 1 | 2.8 | | 58. Vengeance Destruction | EG 86 | 5.41 | 4 | na | na | na | na | | 41. Space Quest | TYR 86 | na | 5.8 | 5 | na | na | | 59. Archwelder | FDG 86 | 4.0 | 2 | na | na | na | na | | 42. Ice War | MGC 76 | 3.58 | 23 | 5.0 | 2 | 8.5 | | 60. Witches Cauldron | RP 86 | 16.39 | 4 | 2.5 | 1 | 5.0 | | | 43. Lords of Middle Sea | TC 7/78 | 10.58 | 8 | na | na | na | | 61. Warlock & Wizards | TTSR 77 | 7.34 | 8 | na | na | na | na | | 44. Omega | YP 8/79 | 13.57 | 3 | na | na | na | | 62. Athletics | ES 7/76 | 4.33 | 6 | 3.0 | 1 | 1.0 | | | 45. WorldWar | SPI 3/80 | 9.58 | 18 | 3.5 | 1 | 4.8 | | | | | | | | | | | 46. Double Star | GDW 3/76 | 10.58 | 15 | 6.5 | 5 | 5.8 | | | | | | | | | | | 47. Carthage | TTS 8/79 | 4.58 | 7 | na | na | na | | | | | | | | | | | 48. Alpha Omega | AH 7/77 | 15.58 | 11 | na | na | na | | | | | | | | | | | 49. Orion 1 | MGC 77 | 3.54 | 28 | 5.8 | 1 | 3.5 | | | | | | | | | | | 50. Aerial Gun Thrust | TTSR 86 | 8.54 | 28 | 5.2 | 2 | 6.0 | | | | | | | | | | | 51. Vector 3 | SPI 4/79 | 5.53 | 30 | 5.8 | 3.8 | | | | | | | | | | | | 52. Titan Strike | SPI 4/79 | 4.54 | 28 | 8.8 | 2 | 6.8 | | | | | | | | | | | 53. Gamma World | TTSR 79 | 10.53 | 21 | na | na | na | | | | | | | | | | | 54. Hot Spot | MGC 78 | 3.53 | 12 | 5.8 | 1 | 2.8 | | | | | | | | | |

The designer's notes of this package promise that at least one more expansion module is to be produced. What has been published so far goes well beyond *Star Trek* the TV show, but like *Squad Leader* and its offspring, it presents a basically playable system onto which layers of minute detail can be heaped. Further expansions will of course feed the appetites of the hardcore fans, but will not force those with more modest wants to cope with more detail than they wish. ■■



SF Game Sampler (continued from page 28)

reces, the Hydrans and Andromedans. The balance of the book (except for Designer's Notes and credits) consists of rules for integrating the new material into old scenarios, and, of course, new scenarios.

Of the new scenarios, the most interesting is "A Very Special Ally." A monster is on the prowl, and an intrepid captain must check it out and, if needful, destroy it. However, this is a two-player scenario, and the second player also has a starship, hostile to the first (the monster acts by pre-programmed rules). Each player can try to get close to the monster (at the risk of being destroyed) and attempt to investigate it. Once enough "research points" are gained, the player will know how to kill it. Beyond that, he can attempt to communicate with it and thereby control it. The ultimate aim of each player, though, is destroying the other ship, not the monster.

Feedback Results, Ares 6

Rank	Item	Rating
1	Voyage of the Pandora	7.38
2	Games	6.75
3	Books	6.13
4	Media	5.96
5	Science for Science Fiction	5.96
6	Film & TV	5.93
7	Facts for Fantasy	5.78
8	DragonNotes	5.30
9	Pandora Tech	5.15
10	Quick Combat II	4.95
Ares 6 Overall		6.80

Books [continued from page 34]

especially his fascination with audiovisual media and their impact on human thought, and his conception of human consciousness as behavioristic "programs" which can be altered either by an outside force or consciously reshaped by one's own mind. The book takes place in Aquaria, the only human civilization to survive a nuclear war. The protagonists are Clear Blue Lou, a sort of zany master of Aquaria's anarchistic society, and Sunshine Sue, one of the people who runs the culture's news network. The dominating belief of their society is a sort of idiot Schumacherism — "white" technology is that which operates off muscle, wind, water, or solar energy, and "black" technology is that which uses fossil fuels or atomic power. Aquaria manages to retain a fairly high standard of living only because it obtains large quantities of solar cells, transistors, and other hi-tech items from a colony of black scientists living in the radioactive wastelands to the east — a fact which its conscientiously "white" citizens do their best to forget.

Caught in a maleficent plot of the evil black scientists, Sue and Lou eventually take a space shuttle built by the nesties to the "Big Ear," a deactivated astronomical observatory and telecommunications satellite. There, they learn that, shortly before Armageddon occurred, human civilization had made contact with extraterrestrials.

Songs from the Stars, like all of Spinrad's work, is vigorous in its prose style,

gorgeous in its imagery, and full-fleshed in its characterization. Spinrad explores his themes with insight and power. However, it has a number of flaws: its Schumacherism leads it to treat the black scientists, especially their master, Arnold Marker, as stereotyped inhuman calculating machines; and one of its major themes is a bit infantile: the idea that someone, in this case our big brothers from the stars, is going to save us from all our problems.

An interesting aspect of *Songs from the Stars* is that it seems perfectly calculated to appeal to the 1980's style counter-culture, and that degraded remnant of it that survives in the anti-nuke movement. The alien contact theme is very much consonant with the Aquarian mystical beliefs abounding in the Haight-Ashbury culture; the Schumacher "small is beautiful" business will appeal to ecotsunys young and old. If the 1980's become another age of protest, it is likely that *Songs from the Stars* will be one of its cult books, as *Lotr* and *Stranger in a Strange Land* were in the 1960's.

Whatever dialectical disagreements one may have with Spinrad's themes, *Songs from the Stars* shows once again that he is an extremely powerful writer — among the best science fiction has to offer.

Part of science fiction's power is that it plays on the cultural archetypes of our times: space, the machine, human progress, the future. Part of fantasy's power lies in the fact that it plays on the mythic archetypes of our culture: magic, power, evil, strange beings.

The best of fantasy, like the best of science fiction, can consequently be immensely provocative. Sadly, there are few fantasy (or science fiction) writers who are sufficiently skilled and sufficiently aware of the dynamics of the problems they handle to fulfill the promise of their themes.

Diana Wynne Jones, though, is a thoroughly skilled professional who knows precisely what she is doing. Her *The Spell-Coats* is not only a ripping good story, but evocative in imagery. It deals with a family of four children who, orphaned by a war, are forced to flee their village with their household gods. Propelled by magical forces they do not entirely understand, they flee down the river on whose banks they have lived all their lives to a meeting and destiny that are both beyond their knowledge and comprehension.

In part, *The Spell-Coats* is a coming-of-age novel. In part, it is a story of awesome magic fearfully wrought — and has the advantage that its magic is organized within a logical conceptual framework. In part, as well, it is a mystery: the reader must put together what is going on in the novel from the evidence that the author provides — and probably will not be able to before the characters do, which shows that, as a mystery, it is well done. As a whole, *The Spell-Coats* is sufficiently good to warrant place on my Hugo Nomination ballot, and should help establish Jones' credentials as an excellent writer.

Greg Costikyan

Designer's Notes [continued from page 16]

in 1900; some industrialization combined with heavy agriculture. The empire does not keep a close watch on Titus, and many of its inhabitants only know of their heritage from stories. Unscrupulous traders and pirates using the latest technology from other worlds often get the better of the rather rustic Titusians.

The major resources of Titus are its delicious high-protein fruits, found in great abundance throughout the temperate climates. Demand for this fruit keeps mer-

chants coming to Orion to take the delicacies to other worlds (where they are sold at exorbitant prices). Titus also has a fair amount of iron, copper, cesium and some minor non-metal elements. However, the Titusians are not industrialized enough to manufacture exportable goods with these resources. Shipping is the main form of transportation on the calm seas of Titus, and most of the settlements hug the coastline. Some alien life forms have been discovered on the planet, but none that were edible or intelligent.

The components of *Universe* have

changed somewhat. At the moment they include a four-color 22" x 34" *Interstellar Display*, providing detailed information on 150 stars within 30 light years of Earth; a 64-page *Gamesmaster's Guide*, a 32-page *Adventure Guide*, a 22" x 17" *Tactical Display* for resolving ship-to-ship combat; 200 counters for use in ship-to-ship combat; two 20-sided dice, a countertray and two-inch deep box. The package will sell for \$20. An introductory pack is also planned, consisting of the two guides and the *Interstellar Display* only. It will sell for \$10. John H. Butterfield

Twilight of the Gods

[continued from page 7]

gods have indeed survived Ragnarok — though no one knows how and no one ever will. Odin's sons Vidar and Vali, and their cousins Vili and Ve walk over the new land and meet at the mysterious place called Ithervale. Baldr arises from the dead, and his brother Hoddur with him, who has now regained his sight; Baldr takes the central seat in the meeting place of the gods. Thor's sons, Magni and Modi, also appear, along with the valiant Hoenir; these new gods remember what has gone before and will learn from the old gods' errors. Odin's great hall is to be rebuilt, and the gods will rule Middle Earth from a hall thatched with gold. The loremaster Hoenir reads the mysteriously engraved runes that have been found and forecasts a new era of peace. Unlike the Aesir and Vanir whose disagreement brought about their destruction, these gods

will never be destroyed. Under them the whole world will be renewed.

Now Yggdrasil flourishes. Its trunk splits open and releases into the world a second race of mankind, which the indestructible tree protected during Ragnarok. They wander out into the beautiful world to enjoy it. Like the gods who rule them, this second race of humankind will never know pain and sorrow.

"Would you know more?" the Sybil asks Odin. There is a great deal more to tell about the future world, she tells him.

At that moment, however, a dragon soars overhead. In its pinions are the bodies of men it has caught and will now eat. The appearance of the dragon breaks the Sybil's concentration, and with it, her prophecy. She will say no more.

This version of Ragnarok has been gathered from several sources and does not mean to serve as the only interpretation of

the *Voluspá*, the song of the witch, as preserved in the 12th century collection of poems, myths and history, the *Edda*, made by Snorri Sturluson. For further readings, see the accompanying bibliography.

The Elder Edda, A Selection, translated by Paul B. Taylor and W.H. Auden. New York: Vintage Books, 1970

Encyclopedia of Mythology (New Larousse Encyclopedia), 1969

The Germanic People, Francis Owen. New Haven, Conn.: College and University Press, 1966

Introduction to Old Norse, E.V. Gordon. Oxford University Press, 1971

The Vikings and Their Origins, David Wilson. London: Thames and Hudson, 1970

Voluspá: The Song of the Sybil, translated by W.H. Auden and Paul B. Taylor. Iowa City: Windhover Press, 1968

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1-3. No question

The following questions ask you to rate the articles in this issue on a scale of 1 (poor) through 9 (excellent); 0 is no opinion.

4. Ragnarok (game)
5. Ragnarok (article)
6. An SF Game Sampler (review)
7. Pandoras Link
8. Science for Science Fiction
9. Facts for Fantasy
10. Media (review)
11. Books (review)
12. Film and Television (review)
13. Games (review)
14. Dragon Notes
15. Designer's Notes
16. Games Rating Chart

17. This issue overall
18. Is this issue better than the last one? 1 = Yes, 2 = No
19. Did you send in the feedback card for your last issue of *Ases*? 1 = Yes, 2 = No
20. Assume that you don't subscribe to *Ases*. Would the quality of this issue alone motivate you to subscribe? 1 = Yes, 2 = No
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22. Your sex: 1 = Male, 2 = Female
23. Education: 1 = 11 years or less, 2 = 12 years, 3 = 13 years, 4 = 13-15 years and still in school, 5 = 16 years, 6 = 17 years or more

Questions 24 and 25 ask about your income. Since feedback cards are anonymous, we hope you'll be willing to help us develop statistical information to attract advertisers; if you'd rather not, simply respond with a "0" for both questions. Thanks.

24. Your individual personal income: 1 = less than \$5000, 2 = between \$5,000-10,000, 3 = between \$10,000-20,000, 4 = between \$20,000-30,000, 5 = between \$30,000-40,000, 6 = between \$40,000-50,000, 7 = between \$50,000-60,000, 8 = between \$60,000-70,000, 9 = over \$70,000
25. Your total household income: 1 = less than \$10,000, 2 = between \$10,000-20,000, 3 = between \$20,000-30,000, 4 = between \$30,000-40,000, 5 = between \$40,000-50,000, 6 = between \$50,000-60,000, 7 = between \$60,000-70,000, 8 = between \$70,000-80,000, 9 = over \$80,000
26. How long have you been playing conflict simulation games? 0 = less than a year, 1 = 1 year, 2 = 2 years, 3 = 3 years, 4 = 4 years, 5 = 5 years or more
27. What is the average number of hours you spend playing simulation games each month? 0 = none, 1 = 1 hour or less, 2 = 2-4 hours, 3 = 5-9 hours, 4 = 10-15 hours, 5 = 16-20 hours, 6 = 21-25, 7 = 26-30, 8 = 31-40, 9 = 40 or more hours
28. How many simulation games (of all publishers) do you possess? 1 = 1-10, 2 = 11-20, 3 = 21-30, 4 = 31-40, 5 = 41-50, 6 = 51-60, 7 = 61-70, 8 = 71-80, 9 = 81 or more

29. What level of complexity do you prefer in games? Rate your preference on a 1-9 scale, with higher numbers indicating increased complexity. Use the following games as guidelines: 4 = *WorldWar*, 5 = *BattleFleet Mars*, 6 = *Air War*

30. What percentage of the games you buy do you expect will be SPI games? 1 = 10%; 2 = 20%; 3 = 30%, 4 = 40%, 5 = 50%, 6 = 60%, 7 = 70%, 8 = 80%, 9 = 90%

31. Pick the one area of science fiction that you most enjoy reading: 1 = Space opera/science fantasy, 2 = "Hard" science fiction adventure, 3 = Problem-solving hard science fiction, 4 = Extraterrestrial societies, 5 = Future societies (utopia/dystopia), 6 = Alternate history, 7 = Time-travel, 8 = Soft science fiction (aka "new wave"), 9 = Other (please write in the category description)

32. Pick the one area about which you would most like to see science fiction games done: 1 = Strategic space conflict, 2 = Tactical space conflict (ship against ship), 3 = Strategic planet-bound conflict (army against army), 4 = Tactical planetbound conflict (men against men), 5 = Alternate history conflict, 6 = Conflict in a contemporary setting, 7 = Role-playing adventure, 8 = Economic/sociological/political conflict, 9 = Other (please write in the category description)

33. How many science fiction games do you own including the game in this issue? 1 = 1, 2 = 2, 3 = 3, 4 = 4, 5 = 5 to 10, 6 = 11 to 15, 7 = 16 to 20, 8 = 21 to 25, 9 = 26 or more

34. Pick the one area of fantasy that you most enjoy reading: 1 = Sword and Sorcery, 2 = Mythological fantasy, 3 = Quest adventure, 4 = Classically-based fantasy (e.g. Arthurian legend), 5 = Fantasy in a contemporary setting, 6 = Superhero/heroic adventure, 7 = Anthropomorphic societies (e.g. *Watership Down*), 8 = Horror/occult, 9 = Other (please write in the category description)

35. Pick the one area about which you would most like to see fantasy games done: 1 = Strategic sword and sorcery boardgames (army against army), 2 = Tactical sword and sorcery boardgames (hero against evildoer), 3 = Quest/adventure boardgames, 4 = Sword and sorcery role-playing, 5 = Quest/adventure role-playing, 6 = Classically-based fantasy, 7 = Anthropomorphic societies, 8 = Horror/occult, 9 = Other (please write in the category description)

36. How many fantasy games do you own? 1 = 1, 2 = 2, 3 = 3, 4 = 4, 5 = 5 to 10, 6 = 11 to 15, 7 = 16 to 20, 8 = 21 to 25, 9 = 26 or more

37. If you are a subscriber to *Ases*, indicate how you came to be one: 1 = An ad in *Strategy & Tactics*, 2 = An ad in *Analog*, 3 = An ad in *Games*, 4 = An ad in a hard science fiction magazine, 5 = An ad in a soft science fiction magazine, 6 = An ad in a science fiction magazine, 7 = An ad in a science fact magazine, 8 = An ad in another kind of magazine not mentioned, 9 = Other (please specify on the Feedback card)

38. Indicate on a 1-9 fantasy-to-science-fiction spectrum where your interest lies. For example, if you're only interested in fantasy games and stories, you'd write "1", if your interest were mainly fantasy but included some sf, you might "2" or "3", evenly divided interest would be "5", and, of course, pure sf interest would rate a "9"

39. How many persons, including yourself, will read this copy of *Ases*? 1 = 1, 2 = 2, 3 = 3, 4 = 4, 5 = 5, 6 = 6, 7 = 7, 8 = 8, 9 = 9 or more

Questions 40 through 54 are to be answered with a 0 to 9 response indicating the percentage of time or money spent on a given activity. 0 = none or almost none; 1 = 10%; 2 = 20%; 3 = 30%; 4 = 40%; 5 = 50%; 6 = 60%; 7 = 70%; 8 = 80%; 9 = 90% or more.

40. What percentage of your total game-playing time is spent on science fiction role-playing games?

41. What percentage of your total game-playing time is spent on fantasy role-playing games?

42. What percentage of your total game-playing time is spent on non-role-playing fantasy or science fiction games?

43. What percentage of your total game-playing time is spent on historical games?

44. What percentage of your total game-playing time is spent playing computer software games?

45. What percentage of the time you spend playing science fiction role-playing games do you spend playing GDW's *Traveller*?

46. What percentage of the time you spend playing science fiction role-playing games do you spend playing FGU's *Space Opera*?

47. What percentage of the time you spend playing fantasy role-playing games do you spend playing TSR's *Dungeons and Dragons*?

48. What percentage of the time you spend playing fantasy role-playing games do you spend playing SPI's *DragonQuest*?

49. What percentage of the time you spend playing fantasy role-playing games do you spend playing Chaosium's *Rune*?

50. In the past 12 months, what percentage of your total gaming expenditures were for science fiction role-playing games or equipment?

51. In the past 12 months, what percentage of your total gaming expenditures were for fantasy role-playing games or equipment?

52. In the past 12 months, what percentage of your total gaming expenditures were for non-role-playing science fiction or fantasy games?

53. In the past 12 months, what percentage of your total gaming expenditures were for historical games?

54. In the past 12 months, what percentage of your total gaming expenditures were for computer software games or supplementary material (not for hardware)?

Please rate the following games on a 1 to 9 scale, with "1" indicating a very low software playability rating and "9" an extremely high software playability rating. Please rate only those games which you have played (against an opponent or software) at least once in the last 12 months. If you have not played in the last 12 months, please do not rate it (respond "0" in the space). All games are SPI published, unless otherwise specified.

55. Barbaren Kings
56. Wrath of the Pandora
57. Arena of Death
58. Magic Realm (AH)
59. Swordquest (FTG)
60. Starweb (FBG)
61. Starfleet Battles (TFG)
62. Time War (YP)
63. Lords of the Middle Sea (TC)
64. Lankhmar (TSR)

Indicate on a 1 to 9 scale the game-worthiness of the following stories and novels, with "1" indicating a very low level of interest in a game on this story/novel and a "9" indicating a very high level of game-worthiness.

65. Foundation Trilogy (Asimov)
66. The Moon is a Harsh Mistress (Heinlein)
67. Ringworld (Niven)
68. Mission of Gravity (Clement)
69. I, Robot (Asimov)
70. Martian Chronicles (Bradbury)
71. Nightfall (Asimov)
72. Nine Princes in Amber (Zelazny)
73. The Forever War (Haldeman)
74. Childhood's End (Clarke)
75. Dorsai! (Dickson)
76. The Space Merchants (Pohl/Kornbluth)
77. First Lensman (Smith)
78. Little Fuzzy (Piper)

79. Please select the statement that most closely describes your current status as an SPI subscriber: 1 = I subscribe to *Ases* only, 2 = I subscribe to *S&T* only, 3 = I subscribe to *Ases* and *S&T* only, 4 = I subscribe to *Ases* and *MOVIES* only, 5 = I subscribe to *S&T* and *MOVIES* only, 6 = I subscribe to *Ases*, *S&T*, and *MOVIES*

Rate the following game proposals on a scale of 1 to 5, with 1 indicating very little inclination to buy the game if published up through 9 indicating a definite intention to purchase.

80. *Odyssey*. After the sack of Troy, the Greek heroes set out for home. Athena and Poseidon, however, were angry at the Greeks for having failed to offer proper sacrifice and for violating Cassandra, and so smashed the fleet with storms. Thus began a series of adventures for various heroes, as the toils of *Odyssey* began another, the most famous. Using a variation of the paragraph story system from *Voyage of the Pandora*, *Odyssey* would be a game for one to six players, each would take the role of a hero

Ulysses, Agamemnon, Menelaus, Nestor, Ajax, and the Trojan Aeneas, and lead a fleet back to the homeland. Of course, the way is fraught with perils—Scylla and Charybdis, sirens, cyclopes, angry gods and goddesses among others. The goal of each player is to return home safely or, if that is impossible, to set up a new homeland in a foreign land. *Odyssey* would contain a 17" x 22" map of the Mediterranean, 200 counters to represent heroes, fiends, and gods, and detailed background information using the paragraph-story game system. To sell for \$12.

81. The New World. To the west lies the fabled land of Cathay, source of silk, spices and fabulous wealth. To the south and east lies the Mohammedan enemy. A way must be found to outflank him, and to join with the forces of Prester John against the caliph. Columbus has the means. To serve God and to conquer. And Christendom has the means. The ships and the tools to find new lands. But what lies out there in the World Ocean, beyond the pale of Ptolemy's geography? The map of *The New World* would cover the entire world—but most would be blank. Up to seven players—Spain, Portugal, France, England, the Netherlands, Genoa, and the German Bankers—send expeditions to the east, west, south and north to discover new lands. As exploration proceeds, the rest of the world is generated by chit placement, using a system similar to that in *Cradel of Blood*. Historical and mythical events would befall the players in a series of paragraphs, as in *Voyage of the Pandora*. The players would have detailed maps of the world, and would be able to find out about what Europe actually found. They may even find Prester John, the Seven Cities of Cibola, or a thriving Viking colony in Vinland. Would include 400 counters, a 22" x 34" game-map and 20 pages of rules and paragraphs. To sell for \$12 to \$15.

82. The Last Enchanters. Magic, the mysterious energy from which magic springs, is fast disappearing from the face of the earth. Sorcerers from the competing medieval kingdoms of the old world converge in the Black Forest where the last great concentrations of the precious substance can be found. Finding mana "deposits" in the magical world is easy at first. Defending one's mana from being controlled by its powerful forces is also easy, if mana is used to do so. While in a mana-rich area, a sorcerer can easily repel mortal threats using conjured armies and powerful spells, or do battles with sorcerers of opposing kingdoms. However, if he has man supply dwindles, or if he is separated from it, the effects of mortal weapons and strategies are more harmful. In *The Last Enchanters*, the magic user's most powerful weapon is the sword. Between feudal enemies, in which standard military might works with and against the dying art of conjurers. Mana may win the battle, but is there enough to win the war? From two to six players vie for possession of the vanished resource on a 22" x 34" map of the medieval Black Forest. The game counters representing sorcerers, knights, wizards, magical and mortal armies, magical items, medieval weapons and of course, mana. A possible *Ares* game. To sell for \$12.

83. Creature That Ate Sheboygan. An expansion and update of SPI's classic rip-off of Japanese monster movies, *Creature Delux* would feature a full-size (22" x 34") map showing not only downtown Sheboygan but the surrounding area as well. The countermap would be increased to 200 counters (background) and the rules would be completely revised in size. In addition to the Basic Game which would use the existing *Creature* system, an Advanced Game would be included to provide those chrome elements for which there was not room in the first edition of *Creature*. Special rules would include the use of exotic experimental weapons to stop the monsters, extensive monster-to-monster combat system. A "Mute can tell the glow" rule, the inclusion of classic 50's sci-fi movie heroes and heroines in the game including handsome windblown scientist, his screaming girlfriend and his brilliant mentor) and more. A possible *Ares* game. To sell for \$10.

84. Circus in the Stars. In the decadent cities of the Arcturn system, the favorite sport is death. During each of the five to eight seasons (depending upon the planet), the populace gathers at festival time for "the games" where they can watch and wager and cheer on their favorite fighters in a brutal contest to the death. A holdover of Arcturn's warlike past, the games may spell death for the players' slaves. The players must choose a champion to face each other in the arena, but for those who manage, train and sell the services of the fighters, they are a goldmine. *Circus in the Stars* would be a role-playing game for 1-10 players in which each participant would adopt the role of "Master" of a gladiatorial school. Players would be provided with extensive wealth and power which they would have to parlay into a stable of fighters. Actual

gladiatorial contests would be played out on one or more tactical displays showing the great arenas of the Arcturn system using either die-cut counters or miniature figures to represent the gladiators. Two combat systems would be provided, a fast-playing system for non-lethal contests and those taking place early in a cycle of games, and a more detailed and exciting system for the climactic matches that finish each festival. Emphasis would not be placed on the tactical combat system, but on the economics of founding and building a "school." *Circus in the Stars* could appear in two possible forms. Please rate each separately:

84A. A 22" x 34" Tactical Display (possibly printed on two sides), 200 backprinted counters, 20-32 pages of rules.

84B. A 22" x 34" Tactical Display (possibly printed on two sides), 200 backprinted counters, 20-32 pages of rules, 20 metal figures (20mm of fighters and other opponents). Boxed to sell for \$18.

Kingdoms of Alusia. Not a stand-alone product, *KOA* would be a completely generated fantasy continent (with world map included) to show the continent's relationship to other areas) for use with SPI's *DragonQuest* or any other fantasy role-playing game on the market. The *Frontiers of Alusia*, the first installment in the system, is scheduled for release this summer. Future maps would include one for each other to form a total area about the size of our War in Europe map. The project could be presented in two forms. Rate each one separately.

85A. A Series. Each package in the series would contain one or two 22" x 34" maps (using mini-hexes) and 8-32 pages of rules and description concerning the various areas and cultures present in Alusia. Generally, each installment would be packaged in a zip-lock bag and would sell for between \$8 and \$12.

85B. A Single Game-Aid. The entire continent of Alusia would be portrayed in 9-12 separate maps at a scale of 5 miles per hex (again using mini-hexes). Three handbooks (a total of 128 pages of material) would be included, each covering a social structure: social organization, economy, customs and religions of one section of the continent, the barbarian northlands, the steppes and mountains of the east and the rich kingdoms of the Five Sisters in the south. The entire package would come in a four inch box and would sell for \$35.

86. The Cheela. On the surface of a neutron star, an amazing amoebic form of life has evolved. The Cheela live on Dragon's Egg, which rotates five times a second, and their civilization develops at a rate thousands of times faster than that of humans. A fascinating new book by Dr. Robert L. Forward traces the development of the Cheela from the first appearance of the amoebic form to the development of a culture thousands of years more advanced than ours. Along the way, the Cheela make contact with a special human expedition to the rogue star as it passes near our solar system in 2050. *Dragon's Egg* would be a multi-player game based on the early stages of Cheela culture. Each player initially controls a small ship of Cheela that attempts to consolidate its faction into an empire, searching for the perfect location on Egg in which to set up his domain. Battles pitting tribes against barbarians and against other tribes are common. The winner is the player who is first able to make successful contact with the humans (when they arrive). Would include a 22" x 34" game-map of Dragon's Egg, a special 3" designed to show the odd nature of Cheela movement and migration, 200 counters and short rules. A possible *Ares* game to sell separately for \$12. Availability subject to author's approval.

87. The Sagittarian Encounter. In this, the third part of the "Pandora Series," the biological survey mission *Pandora* encounters one of the strangest life forms yet discovered: a creature that orbits a star. Most surprising is the revelation that radio waves are emanating from inside the creature; could the waves be some natural phenomena or an indication of intelligent beings within the creature? The decision is made—the humans must find the source of the radio waves. Gathering their exploratory equipment, the search party descends into the nearest orbit, and the adventure begins. *The Sagittarian Encounter* is a game for one to four players, based partially upon the *Cradel of Blood* game system. The party may travel together or split up as they follow the winding digestive, circulatory and nervous systems within the creature. Inside the creature will be a complex system of strange life forms, and their strange existence inside the mammoth being, the space beast's own defense system, and, perhaps, some forms of intelligence. The game would include 400 playing pieces and rules with lots of variations. A possible *Ares* game to sell for \$12.

88. Assault on L-5. At the labitation point L-5, a complex space colony has been created, manufacturing a number

of vital products in the weightless vacuum of space. Freedom-loving people have fled to the colony, since many of the governments on earth have become more dictatorial as the pressures of population increase. Now, the L-5 colony demands a voice in the United Nations as a free and separate state, able to determine its own destiny. The US, USSR and European Common Market band together to overthrow the colony and put down the rebellion. The L-5 colony has only one potential weapon: a slingshot transport used to send finished products into close orbit around earth. The transport can now be used as a cannon to attack approaching ships and to bombard the capitals of unfriendly nations. *Assault on L-5* would be a game in which one player directs the fate of the colony, while the other two players use their own raw materials to use in the transport and fighting for freedom; the other player represents the angry forces of earth attempting to re-conquer the colony. The 22" x 34" map would contain a strategic display of the earth-moon-L-5 system, plus floor plans of the various structures in the colony which the earth players must storm and, 200 counters, rules with numerous scenarios. A possible *Ares* game to sell for \$12.

89. TimeTrapper (Updated Edition). An expansion of SPI's time-traveling adventure game, this updated edition would feature a larger component content: a 22" x 34" map showing the time-traveling paths, charts and tables needed during play, 400 counters to represent all the beings met in an adventure, each with separate and unique powers, and expanded rules. Also featured would be a new scenario, "Trapped in Time," in which a madman snatches the time warp and attempts to change the course of history; the time-trappers must follow the madman back into time and stop him from altering history he's going to assassinate General Grant at Vicksburg! If the madman succeeds in changing history, then a time-trapper might disappear, only to reappear if time is altered once more. It may turn out that one alteration of history causes the madman but drives a time-trapper crazy. The time-trapper would follow his as he/she sets it and so it goes. To sell for \$12.

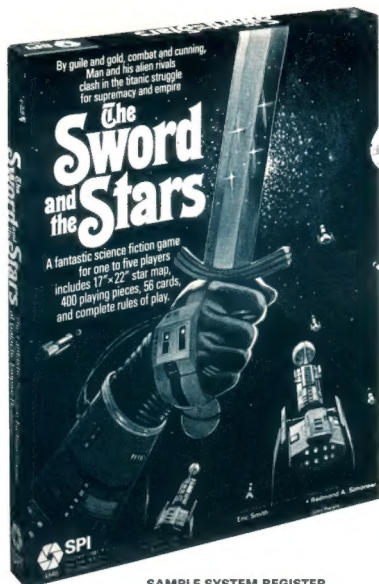
90. Station Morbus. Aboard a small space station far from the mainstream of the interstellar Empire, a handful of scientists experiment on volunteer soldiers. Using established transplant techniques, they seek to provide the Empire with new, better fighting men. Unknown to them, they have succeeded too well. Injections to encourage nerve regrowth have awakened latent psychic powers in some subjects who now realize the horror that is being unleashed here. Escape is impossible, but if the subjects can gain control of the station, they can save others from the same fate. *Station Morbus* would be a game for one to two players, using a system similar to *Wrack of the Pandora* and *Rescue from the Hive*. One player controls six to eight subjects with random physical and mental changes: extra limbs, armor, time dilation, telepathy, telekinesis and domination. The guards would react as the specimens in *Pandora*, or be controlled by the second player. The test subject must work fast, as heavy weapons and reinforcements from the nearby garrison are on the way. Would include one 22" x 17" game-map, 200 counters and eight pages of rules. A possible *Ares* game. To sell for \$10.

91. Wrack of the Pandora Delux. An expansion of the original *Wrack of the Pandora* game, this game would increase the arm of play and incorporate into the game some of the elements from its sister design, *Voyage of the Pandora* (especially the additional monsters from that game). *Pandora Delux* would include a 22" x 17" map of the *Pandora* with larger spaces to facilitate play, diagrams of the Scapulari, Euphorbi, and the shuttle and more. The counter rule would also be increased (to 200 back-printed counters) and the rules would be increased to 12-16 pages. Features would include a two-player (monsters vs. crew) version of the game, more detailed rules for EVA (including using the shuttle which was presumed damaged and unavailable in the original game), and a new set of rules for creating new monsters and equipment, and rules for an exact interface with *Voyage of the Pandora*. There is also the possibility that SPI would commission a miniatures company to sculpt a series of characters and monsters (25mm scale) for use in the game and include these in the *Delux* version. Please rate the two versions separately.

92. A 22" x 17" map, 200 backprinted counters, 12-16 pages of rules. Boxed to sell for \$10.

93. A 22" x 17" map, 200 backprinted counters, 12-16 pages of rules + painting guide and 20 metal miniatures. \$15-\$18.

94-95. No question.



Build an Empire that stretches across a galaxy!

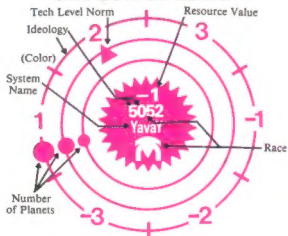
Sword and the Stars is a game of Galactic Empire building in which one to five players guide the destinies of star-faring races as they expand from star system to star system. Based on SPI's popular *Empires of the Middle Ages*, *Sword and the Stars* simulates the dynamics of the creation, expansion, and perpetuation of an empire that stretches across hundreds of light years. Each player controls the central government of one race; during a year, the race may attempt to expand its range of operations through the creation of a StarGate, defend its system through the construction of a GuardianWeb, improve its technical level, encourage trade, or go on raids of pillage and conquest. Special rules cover the Confederation of Worlds, random events (from advances and failures of technology to the toppling of governments), colonization, and the appearance of alien raiders. *Sword and the Stars* includes a 17" x 22" map showing one quarter of a spiral galaxy, 56 Year Cards, 400 cardboard playing pieces, rules, and various playing aids.

SECTOR CHECKS: 1,2.

Card Nr. 42

Operation	Result	Target	Act. Base
CONQUEST	C(5►)	-1(3►)	-1(◄2)
RAID	-	-1(3►)	-1(◄3)
GOVERN	-	-	+1(4►)
COMMUNICATE	T	-	-
GUARDIAN WEB	G(8►)	-	-1(◄8)
STARGATE	S(8►)	-	-1(◄8)

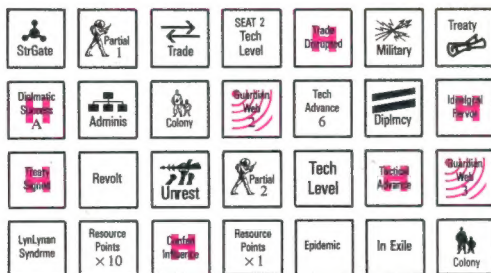
SAMPLE SYSTEM REGISTER



SECTOR CHECKS: None required.

Card Nr. 56















Operation	Result	Target	Act. Base
CONQUEST	C(8►)	-	-1
RAID	R(1►)	-1	-
GOVERN	-	-	+1
COMMUNICATE	-	-	-
GUARDIAN WEB	G(1►)	-	-1(◄1)
STARGATE	S(1►)	-	-1(◄1)







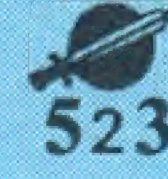





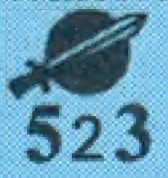


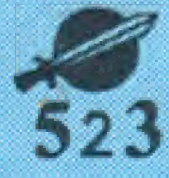











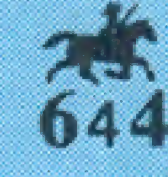


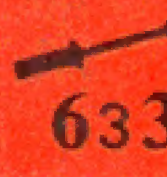








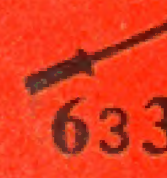

Now available for \$12 through retail outlets nationwide!

Ragnarok Counter Section Nr.1 (100 pieces): Front

Quantity of sections of this identical type: 1. Total quantity of Sections (all types) in game: 1.

Odin 1051	Thor 1140	Tyr 932	Vidar 1030	Heimdall 1001	Freyr 1032	Berserk  632	Berserk  632	Berserk  632	Berserk  632
Odin 	Thor 	Tyr 	Vidar 	Heimdall 	Freyr 	Berserk  632	Berserk  632	Berserk  632	Berserk  632

AESIR



Warrior  523	Warrior  523	Warrior  523	Warrior  523	Warrior  523	Warrior  523	Warrior  523	Warrior  523	Warrior  523	Warrior  523
Warrior  523	Warrior  523	Warrior  523	Warrior  523	Warrior  523	Warrior  523	Warrior  523	Warrior  523	Warrior  523	Warrior  523
Valkyrie  644	Valkyrie  644	Valkyrie  644	Valkyrie  644	Valkyrie  644	Valkyrie  644	Valkyrie  644	Valkyrie  644	Fire  633	Fire  633
Valkyrie  644	Valkyrie  644	Valkyrie  644	Valkyrie  644	Valkyrie  644	Valkyrie  644	Valkyrie  644	Melee Loc	Fire  633	Fire  633

Loki 1032	Fenrir 1040	Hrym 931	Surt 1031	Garm 940	Serpent 1122	Fire  633	Fire  633	Fire  633	Fire  633
Loki 	Fenrir 	Hrym 	Surt 	Garm 	Serpent 	Fire  633	Fire  633	Fire  633	Fire  633

JOTUN

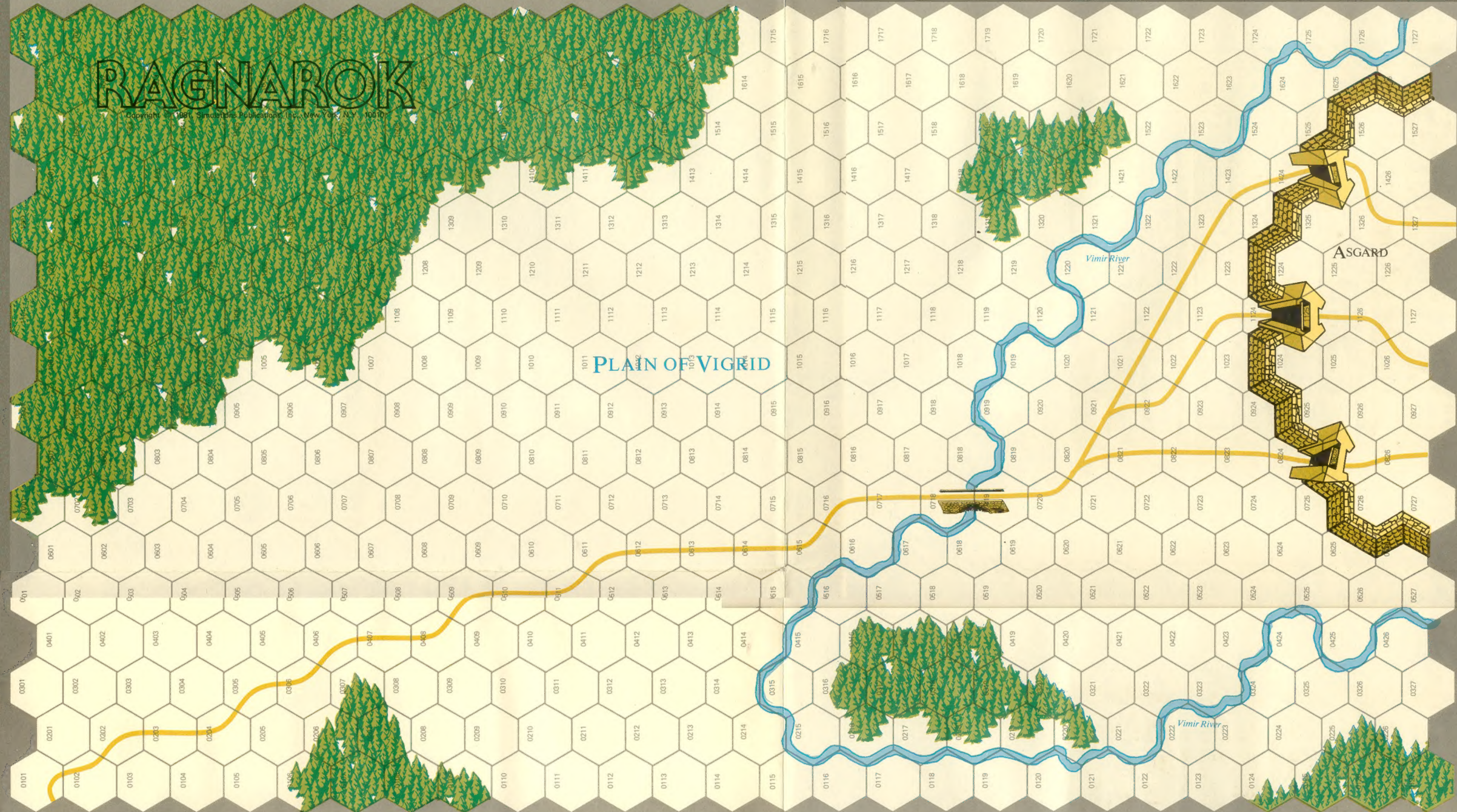
Frost  734	Frost  734	Frost  734	Frost  734	Frost  734	Frost  734	Frost  734	Frost  734	Frost  734	Frost  734
Frost  734	Frost  734	Frost  734	Frost  734	Frost  734	Frost  734	Frost  734	Frost  734	Frost  734	Inc Unit

Ragnarok Counter Section Nr.1 (100 pieces): Back

Berserk  533	Berserk  533	Berserk  533	Berserk  533	Freyr 003	Heimdall 002	Vidar 001	Tyr 003	Thor 001	Odin 002
Berserk  533	Berserk  533	Berserk  533	Berserk  533	Freyr Grievous Injury	Heimdall Grievous Injury	Vidar Grievous Injury	Tyr Grievous Injury	Thor Grievous Injury	Odin Grievous Injury
Warrior  424	Warrior  424	Warrior  424	Warrior  424	Warrior  424	Warrior  424	Warrior  424	Warrior  424	Warrior  424	Warrior  424
Warrior  424	Warrior  424	Warrior  424	Warrior  424	Warrior  424	Warrior  424	Warrior  424	Warrior  424	Warrior  424	Warrior  424
Fire  534	Fire  534	Valkyrie  545	Valkyrie  545	Valkyrie  545	Valkyrie  545	Valkyrie  545	Valkyrie  545	Valkyrie  545	Valkyrie  545
Fire  534	Fire  534		Valkyrie  545	Valkyrie  545	Valkyrie  545	Valkyrie  545	Valkyrie  545	Valkyrie  545	Valkyrie  545
Fire  534	Fire  534	Fire  534	Fire  534	Serpent 003[1]	Garm 001[3]	Surt 002[4]	Hrym 002[5]	Fenrir 001[2]	Loki 003[4]
Fire  534	Fire  534	Fire  534	Fire  534	Serpent Grievous Injury	Garm Grievous Injury	Surt Grievous Injury	Hrym Grievous Injury	Fenrir Grievous Injury	Loki Grievous Injury
Frost  635	Frost  635	Frost  635	Frost  635	Frost  635	Frost  635	Frost  635	Frost  635	Frost  635	Frost  635
	Frost  635	Frost  635	Frost  635	Frost  635	Frost  635	Frost  635	Frost  635	Frost  635	Frost  635

RAGNAROK

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20
Thor

19
Vidar, Odin
Serpent

18
Heimdall
Loki

17
Freyr
Fenrir, Surt

16
Tyr
Hrym

15

Garm

14

13

12

11

10

9

8

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5

4

3

2

1

[11.8] RAINBOW BRIDGE TRACK

3

2

1

Loki, Fenrir, Hrym, and all Frost Giants must pass through this box before Surt, Garm, the Midgard Serpent, and the Fire Giants can enter the Track.

[11.7] RAINBOW BRIDGE COLLAPSE TABLE

GREATEST NUMBER OF UNITS IN ANY ONE BRIDGE BOX

DICE	4 or fewer	5	6	7	8	9 or more
2	-	-	-	-	-	-
3	-	-	1	-	2	1
4	-	-	-	-	-	-
5	-	2	2	1	-	-
6	-	-	-	-	C	1
7	-	-	-	-	-	C
8	-	-	-	-	1	C
9	-	-	-	2	-	-
10	-	-	-	C	-	-
11	-	-	C	-	1	-
12	-	-	-	C	-	-

EXPLANATION:

1: The Bridge collapses in the Rainbow Bridge Check Phase of the next Game-Turn. 2: The Bridge collapses in the Rainbow Bridge Check Phase of the Game-Turn after next (2 Game-Turns). C: The Bridge collapses immediately. (-): No effect.

[8.6] DAMAGE TABLE

COMBAT DAMAGE			BLINDING LIGHT		
TARGET IS...			TARGET IS...		
Hero	Unit	DICE	Hero	Unit	DICE
-1	1 (-1)	2	Incap	Incap	
-3	1	3	Incap (-1)		
-1	1	4	Incap	Incap	
-4g	1 (-1)	5	Incap	Elim	
-3	Elim	6	Incap (-1)		
-2	1	7	Incap	Incap	
-2	2	8	-	-	
-1	1 (-1)	9	Incap	Incap	
-1	1 (-1)	10	Incap	Incap	
-1	1 (-1)	11	-	-	
-1	1 (-1)	12	Incap	Incap	

EXPLANATION:

-1 (through -4): Hero loses indicated number of Endurance Points. 1: Unit retreats one hex. 2: Unit retreats two hexes. 11-12: Unit loses one Step and then retreats one hex. Elim: Unit eliminated. Incap: Unit or hero incapacitated. Incap(-1): Unit incapacitated and loses one Step. g: Hero suffers grievous injury. -: No effect.

[8.8] MORTAL ENEMY COMBAT MODIFICATION SUMMARY

These heroes add the indicated number to their Attack Rating when attacking the indicated enemy hero.

AESIR MODIFICATIONS

Freyr: 1 vs. Surt
Heimdall: 1 vs. Loki
Odin: 1 vs. Fenrir
Thor: 1 vs. Loki; 2 vs. Midgard Serpent; 1 vs. Hrym; 1 vs. Surt
Tyr: 1 vs. Garm
Vidar: 2 vs. Fenrir

JOTUN MODIFICATIONS

Fenrir: 1 vs. Odin; 1 vs. Vidar
Garm: 1 vs. Tyr
Hrym: No modification
Loki: 1 vs. Heimdall
Midgard Serpent: 1 vs. Thor
Surt: 1 vs. Freyr

[5.8] TERRAIN EFFECTS CHART

Terrain	Effects on Movement	Effects on Combat
Clear	1 MP to enter	None
Road	1 MP to enter (see 5.1)	None
Forest	2 MP to enter	-1 to Attack Rating if defender is in forest; Valkyries cannot attack or be attacked by units in forest
River	1 additional MP to cross	-2 to Attack Rating if attacking across river (unit attackers only)
Bridge	Negates MP cost to cross river	-2 to Attack Rating if attacking across bridge (unit attackers only)
Intact Wall	Cannot be crossed	Combat across wall prohibited
Destroyed Wall	1 additional MP to cross (see 11.1, 11.2)	-1 to Attack Rating if units attacking across destroyed wall
Intact Gate	Cannot be crossed by Jotun counters	Combat across gate prohibited
Destroyed Gate	1 additional MP to cross (Jotun or Aesir)	-1 to Attack Rating if units attacking across destroyed gate

EXPLANATION:

MP: Movement Point. Note that the movement restrictions indicated in this chart apply only to ground units and to heroes other than Odin (see 5.3 and 9.1).

[8.7] ATTACK RATING MODIFICATIONS

Subtract 1 from the Attacker's Attack Rating ...if a friendly hero occupies the same hex as the defending unit
...if the attacker is a hero with a grievous injury
Add 1 to the attacker's Attack Rating ...if a friendly hero occupies the same hex as the attacking unit
...if the defender is a hero with a grievous injury
...if the defender is an incapacitated unit
...if the defender is a surrounded unit

[6.7] DISENGAGEMENT TABLE

MOVEMENT ALLOWANCE DIFFERENTIAL					
DIE	-2 or fewer	-1	0	+1	+2 or more
1	-	D	D	D	D
2	-	-	D	D	D
3	-	-	-	D	D
4	-	-	-	-	D
5	-	-	-	-	-
6	-	-	-	-	-

EXPLANATION:

D: Disengagement successful; (-): Disengagement fails.

WARRIOR UNIT HOLDING BOX

The Aesir player can use this space to hold warrior units that are currently replaced by Berserk units (see 10.1, 10.4).

TERRAIN KEY

